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THE BOWSPRIT	4
NEW THINKING ABOUT CHINA	7
<i>John K. Fairbank</i>	
FRANKLIN D. ROOSEVELT IN HISTORY	18
<i>Allan Nevins</i>	
ATHEROSCLEROSIS AND HEART ATTACK	35
<i>David M. Spain</i>	
FOREIGN AID AND THE BRAIN DRAIN	49
<i>James A. Perkins</i>	
JAMES BALDWIN: THE CRUCIAL SITUATION	58
<i>Fred L. Standley</i>	
SHADOWS IN THE RACE — A POEM	70
<i>Harry Strickhausen</i>	
THE COMING AMERICAN ECONOMY	73
<i>Norman A. Bailey</i>	
WHAT IS THE "GREAT SOCIETY"?	82
<i>Edwin O. Reischauer</i>	
THE INTELLECTUAL'S PLACE IN AMERICAN GOVERNMENT	89
<i>Eugene J. McCarthy</i>	
BOOK WORLD	99

THE BOWSPRIT

In several previous issues of *The American Review* we have printed articles analysing various aspects of the Republic of China's policies, foreign and domestic. In "New Thinking About China" *John K. Fairbank* undertakes to suggest what America can do and, even more emphatically, what it cannot do to promote peace in Asia. His prescription throws some light on the conflict in Vietnam. But his especial emphasis is upon the responsibility of other Asian nations to induce China towards a policy of co-existence.

In the October issue of *The American Review*, *Shri B. Shiva Rao* described Franklin Roosevelt's part in promoting the cause of Indian independence.

In this issue *Allan Nevins*, one of America's premier historians, undertakes a sympathetic analysis of F.D.R.'s place in the vast theatre of "The New Deal" and the Second World War.

In Nevins' view, Roosevelt takes his place in history not as an intellectual, not as a moralist — but as an optimist, a humanist, and a pragmatist capable of suiting the adequate act to the urgent crisis.

A causal connection between heart attacks, paralytic strokes, and hardening of the arteries, on the one hand, and a fatty diet, on the other, has long been suspected. In "Atherosclerosis and Heart Attack" *David M. Spain* summarizes the evidence.

Although other factors, including high blood pressure, lack of oxygen, high doses of Vitamin-D, or exposure to cold may be contributory, it now seems highly probable that cholesterol—derived

largely from animal fat—is the principal villain.

Affluent societies are now experiencing atherosclerosis in epidemic scale. This is not due to greater longevity. Diet seems to be a major factor. But the problem may become evident at the affluent levels of low-income countries. Current research directed towards clear-cut answers is therefore of widespread interest.

The United States is gradually awakening to a serious conflict of interest. On the one hand, it is assisting in the process of modernization of under-developed countries through its programmes of grants, loans, and technical assistance. On the other hand, it is inadvertently acquiescing in a process of accepting some of the best minds and talents of developing countries to meet the demands of professional employment in the U.S.

James A. Perkins in "Foreign Aid and the Brain Drain" makes it vividly clear that the loss to the process of modernization in the developing countries is acute.

The solution of the problem is not easy since it may require not only a more discriminating admissions policy by 2,000 U.S. institutions, and a more rigorous visa policy, but also the difficult task within the developing countries of becoming more attractive employers of their own professionals.

James Baldwin, American Negro, has achieved international status as a creative writer and a spokesman for his people. He has also been described as an agitator, an outcast, and a paranoid.

Fred L. Standley in "The Crucial Situation" allows Baldwin to explain himself as a person and as a writer by quoting from Baldwin's novels and from his own efforts at self-analysis.

Norman A. Bailey suggests that the American economic system has passed through two phases of development and is entering a third. In the first, capital and technology were accumulated and a dis-

proportionately small share of income went to labour.

In the second phase, organized labour and the welfare state have redistributed income broadly, with a disproportionately larger share going to a declining labour force.

In the third, capital ownership will become even more widely distributed. The labour force will decline and the market for goods and services will be sustained by income from ownership. The functions of the welfare state will wither away and labour "monopolies" will be outmoded!

Indian economists are invited to attack this thesis in these pages.

The Anti-Poverty campaign in the United States may seem of only ironic interest to less developed countries. So also may appear the American effort to achieve a Great Society. But there are common problems—even though at different levels of productivity.

There are common problems of conservation: soil, forests, water, air, wildlife; of distribution of income; of equality of opportunity; of political freedom; of the quality of education, of civic responsibility; of organizing the megalopolis; of liberating the human spirit.

Edwin O. Reischauer, until recently U.S. Ambassador to Japan and now returned to his former Harvard professorial duties, is unusually well qualified to ask the question "What is the Great Society?"

Philosophers, historians, and men of ideas have been accepted as associates and advisers of politicians since the earliest days of American history. Senator *Eugene J. McCarthy* in "The Intellectual's Place in American Government" discusses the intellectual disciplines relevant to government today and the need for the application of that knowledge to contemporary life and problems.

—R.R.R.B.

NEW THINKING ABOUT CHINA

JOHN K. FAIRBANK

FOR MORE THAN A DECADE we have avoided looking at our China problem, hoping it would go away. But it is still there, waiting to be faced. To understand it, we need historical perspective on China, on ourselves, and on our relations.

In the dozen years since McCarthy tried to turn the lights out, academic study of China has gone ahead, but the State Department has groped along without the help of those purged Foreign Service officers whose firsthand experience in China would have provided useful insight. New talent is emerging, but it is still junior and never knew Peking.

The new American look at China, now under way seventeen years after the Communist takeover, begins with several facts. Contrary to John Foster Dulles' official hopes of 1959, Chairman Mao's revolution will not soon pass away, even though Mao will. We are preparing to live with it, as we now live with the Soviet revolution. Our cold-war policy of "containment and isolation" of China is shifting, in Professor A. Doak Barnett's phrase, to one of "containment but not isolation," towards a better balance.

Yet it takes two to de-isolate. Peking's price for an end of fighting in Asia seems likely to be exorbitant; contact will come only slowly and with pain; and a return of anything like Sino-American "friendship" seems quite out of the question.

Now that the blinders are off and our China policy is back under public scrutiny, we see new actors in a new confrontation. Peking is no longer part of Moscow's monolith. Nuclear-armed China is becoming a great power, a maker or destroyer of world stability.

The Chinese, while verbally bellicose and threatening the world

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with revolutionary take-over, have in fact kept almost all their troops at home, while the Americans, seeking international stability, have sent large forces to fight close to China in Vietnam. We need to apply fresh perspective to both sides.

A World of Its Own

Down to the nineteenth century, China was its own world, an enormous, ancient, isolated, unified, and self-sufficient empire stretching from the latitude of Hudson Bay to Cuba, or from the Baltic Sea to the Sahara Desert. It had a great deal of domestic commerce to meet its needs, but was cut off from West Asia by the high mountains and deserts of Central Asia and thus remained isolated throughout most of its history.

So it preserved a continuity of development in the same area over some three or four thousand years, and had a strong tendency to look inward; China was the centre of the known world and of civilization. Non-Chinese were peripheral and inferior. China was superior to all foreign regions.

The Chinese did not believe in the equality of all men. They believed in selecting an elite of talent, training these men in the classical orthodoxy, and promoting them as officials to keep the populace under control and maintain the system.

We need not labour the point that China today still has a ruling class of people selected for their abilities, who propagate a true teaching under a sage ruler and strive to keep the various social classes in order.

Rule by Virtue

China's message for mankind was summed up in a great Confucian political fiction, the myth of rule by virtue. According to this, the right conduct of a superior man, acting according to the correct principles, set an example which moved others and commanded their respect and allegiance.

In particular, the emperor's right conduct, the most perfect example among mankind, was thought to exert an influence over all beholders. His virtuous conduct commanded their loyalty, provided that they also understood the correct principles of conduct as laid down in the classics. Persons too uneducated to be so moved could, of course, be dealt with by rewards and punishments.

This national myth of rule by virtue fills the Chinese historical

record. It corresponded in political life, I suppose, to the Western concept of the supremacy of law and the natural rights of the individual and his civil liberties under law, including the idea of self-determination for nations.

In their foreign relations the Chinese rulers down to 1912 extended their domestic doctrines abroad and applied the national myth of rule by virtue across their frontiers.

Foreign rulers could have contact with the Peking monarch only by sending tribute to him and having their envoys perform the three kneelings and nine prostrations of the kowtow ritual. This elaborate and prolonged ceremony was absolutely insisted upon by the court to preserve the image of China's superiority and show the foreigner his proper place in the world hierarchy.

Save the Rituals

When China was weak, it could still protect the fiction of supremacy by maintaining the rituals and the written records. For example, three thousand Mongol warriors might ride down to Peking on a so-called "annual tribute mission," being royally entertained and given expensive gifts at great cost to the government, and letting the Chinese court call it "tribute" just to keep its fictions intact. In short, the tribute system was sometimes maintained by giving gifts.

The long record of Chinese foreign relations shows the importance attached to the political myths of China's superiority and rule by virtue. Maintaining this ideological orthodoxy in written form helped the emperor keep power in fact, because the recorded "facts" always sustained the theory. It was like the advertisement for paint—"Save the surface [or the record] and you save all."

The emperors were constantly spelling out the true doctrines, having them read in the Confucian temples and studied by all scholars. Heterodoxy and deviation could not be permitted, or if they did exist, could not be acknowledged to exist. The emperor's asserted supremacy over all mankind was the foundation of state power. Consequently, the monarchy's gradual failure and eventual extinction in 1912 were an epochal calamity.

Even when the foreigners became more powerful, the myth of China's superiority had to be solemnly recorded and preserved in ritual. This stress on orthodoxy strikes one today, when Peking is continuing its nationwide indoctrination in Chairman Mao's true teachings. Orthodoxy seems more necessary than ever to keep in

order the world's most numerous citizenry, more people than have ever before been governed by a single regime.

The Nineteenth-Century Disaster

The disaster that hit China in the nineteenth century is one of the most comprehensive any people has ever experienced. The ancient tradition of China's superiority, plus this modern phase of disaster, undoubtedly produced one first-class case of frustration. It could not seem right that a civilization once at the top should be brought so low.

The nineteenth-century disaster began with a great population increase during the peaceful eighteenth century, a consequent weakening of administrative efficiency, and maybe some popular demoralization, evident in the beginning of opium smoking.

In the Opium War of 1840 the Chinese were fighting against the opium trade, conducted by both foreigners and Chinese, while the British were fighting, in the broad sense, against the tribute system, demanding that China drop its claim to superiority and join the modern international trading world, the same thing we are waiting for today more than a century later.

The Opium War and the "unequal treaties" of the 1840s gave our merchants and missionaries a privileged status as agents of Westernization in the Chinese treaty ports. Throughout the following century, Western influence gradually disintegrated the old Chinese civilization.

As the disaster gained momentum, Western gunboats proved that China had to acquire modern arms and scientific technology, and then had to have Western industries, for which it was necessary to have Western learning, and eventually Western institutions and even a Western type of government. The omnipotent monarchy was humbled. The prestige of the Confucian classics evaporated. The Confucian type of family structure began to crack. China's superiority vanished, even culturally. The generation of Chinese that lived through this long-continued upheaval, which happened in our grandfathers' time, experienced a deepening crisis. The sacred values of proper conduct and social order proved useless. The ancient faith in China's superiority as a civilization was slowly strangled. The privileged foreigners came in everywhere and gradually stirred up a Chinese nationalism.

So complete was the disaster that in the twentieth century a new order has had to be built from the ground up. Western doctrines

of all kinds were tried out between the 1890s and the 1930s. The thing that proved effective was the Leninist type of party dictatorship, an elite recruited under discipline according to a new orthodoxy, organized something like an old Chinese secret society, united in the effort to seize power and re-create a strong state.

This nationalistic aim, represented first by the Kuomintang, overrode every other consideration. The kind of Western individualism propagated by our missionaries had little chance in the midst of the political struggle to rebuild a strong state, and even less chance after Japanese aggression began in 1931.

In their retrospective humiliation and sense of grievance over the enormous disaster of the nineteenth century, modern Chinese have generally felt that their country was victimized. So it was—by fate. Circumstance has made China the worst accident case in history.

A Devil-Theory

But the Chinese view of history for reasons mentioned above has always been very personal, seeing rulers rise or fall by their good or bad conduct. To attribute China's modern fate to a historical abstraction like "cultural homeostasis" (that is, China had developed so much self-equilibrating stability that it did not respond quickly to the Western threat) is not emotionally satisfying to Chinese patriots.

It is like asking a man run over by a truck to blame it on a congested traffic pattern. He will say, No, it was a truck. Consequently, Chinese of all camps have united in denouncing the obvious aggressions of the foreign powers.

Marxism-Leninism caught on in the 1920s, even though the proletariat was miniscule and class struggle minimal, by offering its devil-theory to explain China's modern foreign relations: "Capitalist imperialism" from abroad combined with "feudal reaction" at home to attack, betray, and exploit the Chinese people and distort their otherwise normal development towards "capitalism" and "socialism."

Thus a great Communist myth of imperialist victimization has become the new national myth of a revived central power at Peking.

Those who see Communist ideology as an all-conquering virus may prefer to discount history and omit it from their diagnosis. But to understand China without history, to divorce

this most historical-minded of all cultures from its past, is quite impossible. The Chinese Communists themselves use history to "prove" their anti-imperialist doctrine. Communist ideology and China's historical record thus overlap.

One can easily see the utility of having "American imperialism" (as distinct from the American "people," who are somehow "exploited" by Wall Street) as China's national enemy: our eternal menace justifies Peking's draconian rule. One wonders if the Chinese Communist Party could survive without us; our role as enemy seems essential to Chairman Mao's morality play.

Yet we must recognize there is more to it than theory and propaganda. Lenin's picture of economic imperialism has been broadened by Mao to include all foreign contact. Even missionary good works are now seen to have been "cultural imperialism." The latent feeling is one of resentment against the whole great fact of China's having fallen behind the modern outside world.

Modernization and Condescension

If we now turn to look at ourselves, we can see where American self-esteem and resentment come into play, for we are generally conscious of having long befriended China and recently been kicked in the teeth for it. We can only dimly imagine how the proud Chinese elite have suffered from being on the receiving end of modernization.

Being on the giving end of modernization ourselves, in the privileged status thrust upon us by the treaty system, most of us enjoyed our contact with China. We could be upper-class foreigners commanding servants and riding in rickshaws while still remaining egalitarian grass-roots democrats in our own conscience.

The Chinese were polite, and countless Americans made warm friends among them. The American people built up a genuine, though sometimes patronizing, fondness for "China." Unfortunately, this now turns out to have been an unrealistic and naive attitude.

The Americans were conscious of their own good intentions and less conscious of the humiliation that their superior circumstances often inflicted upon their Chinese friends.

When Britain and others fought their colonial wars, the Americans enjoyed the fruits of aggression without the moral responsibility. By 1900 the British, the French, and the Japanese had fought wars with China; the Russians had seized territory; and

all of them, as well as the Germans, had seized special privileges in spheres of influence.

The Americans had done none of these things and came up instead with the open-door doctrine, which soon expanded to include not only the open door for trade but also the idea of China's integrity as a nation.

Thus we Americans could pride ourselves on championing China's modernization and self-determination. We considered ourselves above the nasty imperialism and power politics of the Europeans. We developed a self-image of moral superiority.

The open door and benevolence towards Chinese nationalism became the basis of our Far Eastern policy until war with Japan brought us up against the realities of power politics. Then we began to realize, for almost the first time, that the power structure of East Asian politics had been held together by the British Navy in the nineteenth century, and by the British and Japanese navies under the Anglo-Japanese Alliance from 1902 to 1922.

American Responsibility

Today we find ourselves in an onerous situation trying to maintain the power balance in East Asia. Vietnam is reminiscent in some ways of the colonial wars of the nineteenth century, a type of situation that we generally succeeded in avoiding in that era.

I do not contend that we today are simply nineteenth-century imperialists come back to life, but I don't believe we can escape our historical heritage entirely, any more than Mao can. We have been part and parcel of the long-term Western approach to Asia and ought to see ourselves in that perspective.

The Western powers have played major roles in East and Southeast Asia for four hundred years even if we have not. The West has made its contribution while also precipitating the nationalist revolutions. American merchants and missionaries joined in making the Western contribution.

We cannot now condemn and disown the old British Empire, for instance, just because we let the British fight the dirty colonial wars while we got the benefits. We were and are involved in East Asian power politics at least as much as in those of Europe. But Vietnam today gives us a more severe crisis of moral conscience partly because during most of our history we have felt morally superior to the imperialist powers.

Stuck in a dirty war today, we would do well to lower our self-

esteem, not be so proud, acknowledge our Western inheritance of both good and evil, and see ourselves as hardly more noble and not much smarter than the British and French in their day. We cannot take East Asia or ourselves out of power politics.

Once we see ourselves as an integral part, and now the major representative, of the Western world that was the nineteenth-century agent of traditional China's downfall, perhaps we can reduce our own resentment at Mao's resentment.

What Can We Do?

Given these cognate Sino-American resentments on either side—and each has a long list of grievances, too long even to suggest here—what can we expect in our future relations?

First, we can be sure that a resumption of American generosity to China will not cure but only worsen our mutual enmity. "Let us recognize them and get it over with," as some put it, is not a psychologically feasible approach.

Neither is giving them grain, like the famine relief of old, for it puts China back on the short end of things, receiving our beneficence.

Instead, we should take the long way around and expect our own relations with China to improve only after Sino-third-party relations have done so. We should lower the level of polemics if we can, but not anticipate a direct reconciliation.

This suggests, in the second place, that we can hardly take the lead, but instead should acquiesce in the effort to get Peking to participate in the international order rather than try to subvert and destroy it.

This is primarily a psychological problem for the international community to deal with. Therapy for Peking's present almost paranoid state of mind must follow the usual lines of therapy: it must lead the rulers of China gradually into different channels of experience until by degrees they reshape their picture of the world and their place in it.

This programme should get Peking into a multitude of activities abroad. China should be included in all international conferences, as on disarmament, and in international associations, both professional and functional; in international sports, not just ping-pong; and in exchange of news, technology, persons, and trade with everyone, including ourselves, except for strategic goods.

One thinks naturally of the UN agencies and participation in

the Security Council as well as the Assembly. Yet all this can come only step by step, with altercation all along the way—not an easy process but at least a political one, more constructive than warfare.

Co-existence and Prestige

The remoulding of Chairman Mao, the greatest remoulder of others in history, is not something outsiders can attempt. But he and his colleagues are great believers in tactical shifts to meet changing circumstances. Their militant ideals may remain out of reach, but changed tactics can lead them into that great coolant of expansionism: co-existence.

In accepting the international world as an alternative to trying to subvert it, Chinese behaviour can meet China's needs. One of these is the craving for greater prestige in the world to redress the balance of the last century's humiliations. For China to be in the centre of the world's councils seems to any Chinese patriot only right and proper.

The Peking government also needs prestige to maintain itself domestically. In addition, like all developing countries, China needs certain kinds of aid through exchanges of technology, of persons, and of goods.

The international community can also expect Peking to respond sooner or later to the opportunity to manipulate foreigners against one another. This traditional way of dealing with outsiders can be attempted in any conclave like the United Nations. But others also play the game; in fact, it is the essence of diplomacy.

As all these motives come into play, Peking will become more involved in bilateral relationships and be influenced by others whose desire is for peace rather than violence.

In the end, after much travail, all this may make co-existence more attractive. Yet in the meantime, Peking's subversive efforts to foment "people's wars of liberation" may be expected to continue and will have to be countered.

An American Catalyst

Thus a new American attitude can catalyze rather than obstruct the stabilizing of Peking's relations with the international world. It is time to shift from trying to isolate Peking, which only worsens our problem, to a less exposed position where we can acquiesce in

the growth of contact between Peking and other countries and let *them* suffer the impact of Peking's abrasiveness.

Similarly, concerning Taiwan, we cannot demand that our sovereign ally Chiang Kai-shek pension off his aging Nationalist government echelons and build up the elected Taiwan provincial government to run the island, thus acknowledging defeat in China's civil war. Such steps must be left for his successors.

But meantime, the Seventh Fleet can continue to quarantine the Formosa Straits, and we can advocate "self-determination" though we cannot enforce it. In the end we shall have to let Taipei and Peking work out their respective UN relationships. We cannot do it for them.

Firmness, Containment, and Light

But this helping to open the door for China's participation in the world scene is only one part of an American policy. The other part is to hold the line, for the Chinese are no more amenable to pure sweetness and light than other revolutionaries.

Encouraging them to participate in the UN and other parts of the growing international order has to be combined with a cognate attitude of firmness backed by force. Military containment on the Korean border, in the Formosa Straits, and somehow in Vietnam cannot soon be abandoned.

Indeed, the new effort at non-military contact with Peking, here advocated, is feasible in American policy precisely because we are being so active militarily in Vietnam. Contact and negotiation, far from being an either-or alternative to fighting, are essential to balance our continued military presence and keep it within a larger, political framework.

If military containment is not to trigger major war, it must be explicitly and credibly limited, not subject to open-ended escalation. "Containment" should aim simply to contain, not to terrify, confuse, or, least of all, provoke.

Recognition of military strength on both sides, and also its limitations on both sides, is an inducement to stabilizing relations—particularly if it is recognized that China is a land animal, unconquerable at home, while the United States is a sea-and-air animal, able to frustrate the Maoist type of revolutionary take-over abroad but not to take over itself.

Containment alone is a dead-end street, but a policy of contact works in both directions. Both sides give and both get. Who can

doubt that our own militancy was defused, from the level of un-reasoning fear down to the level of political competition, when Nikita Khrushchev became an American TV personality?

A Two-way Street and the Long Road Ahead

The Chinese instinct for diplomacy will soon find that in the United States there is some sort of audience responsive to every view, but our major sentiments of goodwill respond less to dogma and bombast than to reasoned self-interest and give-and-take. Thus a programme of contact is a two-way street.

The first step is the hardest, for it must be taken in our own thinking—to abandon both the fear of Chinese military menace and the hope of Chinese friendliness. China will not fight us unless we get too close to its frontiers and ask for trouble. The Chinese will not respond to friendly overtures except to repeat “Get out of Taiwan,” which by our own principles we will not do unless genuinely asked by the people there. Peking will continue to damn us for crimes we did not commit and evil aims we do not have.

In short, my reading of history is that Peking’s rulers now shout aggressively out of manifold frustrations, that isolation intensifies their ailment and makes it self-perpetuating, and that international contact with China on many fronts can open a less warlike chapter in its foreign relations.

But we are dealing with revolutionists who face enormous domestic difficulties, labour under serious emotional problems themselves, and have a warped understanding of the outside world. In facing reality, to avoid disaster we must understand their dilemma as well as ours.

We should be sanguine about the probable outcome. For the short term, the results will seem discouraging, and hard on our patience. But over the long haul, we have no other course.

JOHN K. FAIRBANK is *Director of Harvard University’s Asian Research Centre.*

FRANKLIN D. ROOSEVELT IN HISTORY

ALLAN NEVINS

SELDOM HAS AN EMINENT MAN BEEN more conscious of his place in history than was Franklin D. Roosevelt. He regarded history as an imposing drama and himself as a conspicuous actor. Again and again he carefully staged a historic scene: as when, going before Congress on December 8, 1941, to call for a recognition of war with Japan, he took pains to see that Mrs. Woodrow Wilson accompanied Mrs. Roosevelt to the Capitol thus linking the First and Second World Wars.

As governor and as President, he adopted for the benefit of future historians the rule that every letter addressed to him, however insignificant, and copies of every document issued from his office, should be preserved. This mass of papers, mounting into the millions, soon became almost overwhelming. It might have been added, with some difficulty, to the many other official collections in the Library of Congress.

The Hyde Park Memorial

But, with a strong sense of his special place in history, Roosevelt wanted a memorial all his own, a place of resort for scholars,

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connected uniquely with his name and his administrations. He announced the gift of his papers to the nation; his mother gave sixteen acres of land for a building at Hyde Park; some 28,000 donors subscribed \$400,000 for an edifice; and Congress made the Roosevelt Library a federal institution.

In this Library at Hyde Park, as a token of his place in history, he took an almost naive pride. I well recall the dinner he gave early in 1939 to the trustees and a select number of historians to discuss plans for its management. It took place at the Mayflower Hotel in Washington; he was wheeled up an inclined ramp to his place at a central table; he waved joyously to everyone; he enjoyed his stewed mulligatawny turtle—a favourite dish—his companions, his sense of launching another original enterprise.

In a long informal speech he talked of certain predecessors: of Lincoln, of Grover Cleveland, whom he had known, and of his cousin Theodore Roosevelt; he dwelt on Woodrow Wilson's sense of history—Wilson in 1917 had forbidden young Roosevelt, then Assistant Secretary of the Navy, to bring warships up from Cuban waters to the United States lest future historians should accuse him of making a provocative gesture on the eve of our first war with Germany.

I well recall, too, the still more interesting occasion when he laid the cornerstone of the Hyde Park Library on November 19, 1939. Trustees, historians, and editors lunched with him; he gaily drove his own specially equipped car to the site; he chatted blithely with everyone; and he watched the cornerstone slip into place with a gratified smile.

Today his grave lies close by that Library, and by the family home that has become a national shrine, visited by hundreds of thousands every year. To the collections there shelved, multitudes of scholars annually repair, for they are open to all.

Roosevelt's own deposits, including letters, documents, books, pamphlets, films, photographs, speeches, and museum pieces, have exceeded a total of fifty million items; and to them are being added the papers of Cabinet officers and other official associates. The career of no other American President has so vast a documentation for history.

First Place, or Third?

Is it too soon to estimate the place of Franklin D. Roosevelt in the stream of American and world events? It is never too soon for

such a task. History is not a remote Olympian bar of judgment, but a controversial arena in which each generation must make its own estimate of the past. We have every right to fix the historical position of Roosevelt as we see it today, knowing that it will be reassessed from the vantage point of a longer perspective and fuller knowledge in 1975, and re-estimated again in 2065.

That it will be a great place we may already be certain. A statue to Roosevelt has been reared in Oslo. When a statue was proposed in London, five-shilling subscriptions were open one morning; they were closed that night with the sum oversubscribed; had they been kept open a few days money would have poured in for five statues. Streets have been named for him around the world.

Fifty American historians, interrogated by Arthur M. Schlesinger, Sr., of Harvard, have all but unanimously agreed that in the roster of Presidents Lincoln stands first, Washington second, and Franklin D. Roosevelt third. Hearing of that verdict, Winston Churchill declared that in impact upon world history Roosevelt unquestionably stood first.

We have this advantage in attempting the task, that a great part of the necessary evidence is already at hand. Never before in human annals has so huge a volume of reminiscences, autobiographies, impressions, letters, official documents, and other data bearing on one man been issued within twenty years of his death.

The thirteen volumes of Roosevelt's official papers edited by Judge Samuel I. Rosenman and the four volumes of personal letters edited by Elliot Roosevelt; the memoirs of Cordell Hull, Harry Hopkins, Henry Morgenthau, Harold Ickes, Henry L. Stimson, James Farley, Edward J. Flynn, Mrs. Franklin D. Roosevelt, Frances Perkins, Grace Tully, Hugh Johnson, Dwight Eisenhower, Omar Bradley, and a hundred others; the mass of comment by Washington reporters and war correspondents who watched history being made; the procession of European histories and memoirs so impressively headed by Winston Churchill's volumes—this already forms a corpus too great for one student to explore fully in a lifetime.

But while we shall have immense fresh accretions of detail, it is unlikely that we shall receive any startling new "revelations," any facts that will offer a basis for sweeping revisions of judgment.

In dealing with every commending figure of history, a fundamental question presents itself: To what extent did greatness inhere in the man, and to what degree was it a product of the situation? If great men have their stars, as Napoleon said he did,

it is often because a national or world crisis favours greatness.

The reason why fifty American historians did not wholly agree with Winston Churchill upon Roosevelt's rank among the nation's Presidents is, I think, simple. Washington had indisputable greatness in himself. "The first, the last, the best, the Cincinnatus of the West," as Lord Byron called him, he was great in character, great in traits of leadership, great in insight and wisdom.

Lincoln had an even more manifest and appealing personal greatness. His public utterances, from the House Divided address to the Gettysburg Address, his state papers, from the First Inaugural to the final pronouncements on Reconstruction, attest a rare intellectual power.

The wisdom of his principal public acts, his magnanimity towards all foes public and private, his firmness under adversity, his elevation of spirit, his power of strengthening the best purposes and suppressing the worst instincts of a broad, motley democracy, place him in the front rank of modern statesmen.

But with Franklin D. Roosevelt we feel no such assurance of transcendent personal eminence. We feel that he lacked the steadfast elevation of character exhibited by George Washington. We find in him distinctly less intellectual power than in Jefferson, Lincoln, or perhaps Woodrow Wilson. We conclude, in short, that his tremendous place in history was in lesser degree the product of his special personal endowments, and in larger degree the handiwork of his stormy times, than that occupied by George Washington or Abraham Lincoln.

On the Credit Side, . . .

That Roosevelt had remarkable intellectual gifts is plain; but these gifts fell short of the highest distinction. He possessed a quick, resourceful, and flexible mind. This fact is illustrated on an elevated level by his ability to deal with fifty important issues in a day, making shrewd decisions on each; by his power in war-time of efficiently coordinating departments, industries, and armies, of gaining the teamwork of generals, admirals, and business leaders, as no other President has ever done.

He organized the national energies with unique success. His intellectual proficiency is illustrated on a lower plane by almost any of the press conferences recorded in Judge Rosenman's volumes; by his deft tact in handling two-score quick-witted newspapermen, evading some questions, dissecting the fatuity of others, using a few

to touch a needed chord of public opinion, and responding to many with concise, expert answers.

Like his cousin Theodore Roosevelt, he had an insatiable curiosity about books, about men, about events. It was linked with an unquenchable zest for experience; the zest expressed in his famous wartime message to Churchill, "It is fun to be in the same century with you."

He had a talent for quick parliamentary hits. He could make his enemies ridiculous by a few pungent words, as in the happy rhythmical phrase about "Martin, Barton, and Fish" that, recited over the radio, exposed these three reactionary congressmen to a continental gale of laughter in 1940; or by a lambent flare of humour, as in his speech of 1944 picturing the Scottish unhappiness of his dog Fala over an accusation of extravagance.

He had flashes of daring imagination. He had a remarkable gift of rapid improvisation, as he showed in all the recurrent crises of his twelve crowded years in office. In part this consisted of his ability to use other men's thought; "he is the best picker of brains who ever lived," his intimates used to say. His power of application was remarkable even among our overworked Presidents. He had an average working day of fourteen hours (Truman later boasted of sixteen), and he told Governor James M. Cox: "I never get tired."

Not an Intellectual . . .

But of pre-eminent intellectual talent he had little. I recall Walter Lippmann saying in the second administration: "He has never written a real state paper." In a sense that is true. No paper signed by him equals Washington's Farewell Address, Lincoln's great papers, Theodore Roosevelt's first annual message, or Woodrow Wilson's nobler productions.

Nearly all his speeches were in fact largely written for him by others. Robert Sherwood describes a typical scene: Judge Rosenman, Harry Hopkins, and Sherwood gathered about a table discussing the material for an imminent presidential address, and threshing it over and over until Judge Rosenman impatiently flung down a pencil with the words, "There comes a time in the life of every speech when it's got to be *written!*"

Roosevelt wrote no books; he was probably incapable of matching such a work as Theodore Roosevelt's *The Winning of the West*. He threw out no such immortal epigrams as Churchill's

sentence challenging Britons to face a future of "blood, sweat, and tears." His best phrases, like "the forgotten man" and "the new deal," were borrowed from other men.

A capacity for abstract thought was largely omitted from his equipment. The idea once current that he had a special intimacy with Maynard Keynes was obviously erroneous, for he was simply incapable of following a mind so analytical, an intellect so subtle, as that of Lord Keynes. When John Gunther asked one of Roosevelt's friends "Just how does the President think?" he met the reply: "The President never *thinks*."

Like Theodore Roosevelt, he was primarily a man of action. His mental processes, as many friends have said, were intuitive rather than logical. He reacted rather than reflected. A President is not necessarily too busy to do abstract thinking. Newton D. Baker, who held a minor post in Grover Cleveland's administration and a major office under Woodrow Wilson, once observed to me that while Cleveland shouldered his way through difficulties like a buffalo charging a thicket, Wilson "dissolved his problems by an acid process of thought." This acid process was beyond Roosevelt.

Whodunits and Wisecracks

All that is told us of his reading suggests that it was rather adolescent: either escapist, like the detective stories carried on every long trip; or attached to a hobby, like naval history; or journalistic. His humour lacked the philosophic overtones of Lincoln's, or even the saltiness of Harry Truman's; it, too, was somewhat adolescent.

It was usually the humour of the quip, as when he said to his secretary, Grace Tully, overaddicted to punctuation, "Grace, how often do I have to tell you not to waste the taxpayer's commas?" Or it was the humour of the wisecrack as when he remarked to the six New England governors who startled him in 1933 by suddenly appearing at the White House in a body: "What, all six of you? You're not going to secede from the Union, are you?"

We all know what Lord Bacon said makes a ready man; and intellectually, the talkative Roosevelt was a ready leader—perhaps the readiest of all the world's leaders in his exigent time. This power to act quickly, shrewdly, and earnestly was a gift that served the nation and the free world with unforgettable dexterity and force.

Honouring this princely capacity, we can afford to give minor

weight to the fact that his mind, compared with that of Woodrow Wilson, sometimes appears superficial, and that he possessed no such intellectual versatility as Thomas Jefferson—to say nothing of Winston Churchill.

Optimist, Idealist, Humanist

In respect to character, similarly, he had traits of an admirable kind; but we must add that even in combination, they fell short of a truly Roman weight of virtue. He held sincere religious conviction, and it was no mere gesture that led him to take his Cabinet, on the morn of his first inauguration, to divine service at St. John's. "I think," writes Mrs. Roosevelt in *This I Remember*, "he actually felt he could ask God for guidance and receive it. That was why he loved the Twenty-third Psalm, the Beatitudes, and the thirteenth chapter of First Corinthians."

He was one of the unflinching optimists of his time. Having conquered a prostrating illness and horrible physical handicap, he felt an inner faith in man's power to conquer anything. When his aides made estimates of American industrial capacity, he raised them; when the Combined Chiefs of Staff set down dates for the various goals in the invasion of Europe, he revised them forward.

Because of his religious faith and his ingrained optimism, he possessed an unflinching serenity. In the stormiest of hours his nerve was never shaken.

On his first day in the Presidency in 1933, with the banks of the nation closed down and the country almost prostrate with anxiety, he found his desk at six o'clock in the afternoon quite clear. He pressed a button. Four secretaries appeared at four doors to the room. "Is there anything more, boys?" he inquired. "No, Mr. President," they chorused. And Roosevelt remarked with his happy smile: "This job is a cinch!"

Equally admirable were his idealism, his consciousness of high objectives, and his frequent nobility of spirit. He was willing to sacrifice himself for the public weal. When in 1928 Alfred E. Smith, the Democratic presidential candidate, asked him to run for governor of New York, he was told by physicians that if he kept out of public life another year or two he could regain the use of his left leg, while if he did not he would be incurably lame; but he answered the call of duty.

His concern for the poor, the friendless, the unfortunate, was more keenly humane than that of any leader since Lincoln. "I

see one-third of a nation," he said in his Second Inaugural, "ill-housed, ill-clad, ill-nourished"—and meant to do something about it. Moderately rich himself, he disliked those who were too rich. The steel magnate Eugene Grace, who took a bonus of a million dollars a year without the knowledge of his stockholders, aroused his bitter scorn. "Tell Gene he'll never make a million a year again!" was the angry message he sent the man.

Frances Perkins, who had known him as a rather arrogant, snobbish young man before his seizure by infantile paralysis, and who knew him as a battler for social justice afterwards, believed that this physical ordeal taught him sympathy for the afflicted and under-privileged.

Duplicity? Opportunism? Evasiveness?

Yet, we must add, these impressive virtues were flawed by certain grievous defects. He had flashes of insincerity which sometimes impaired the confidence even of close friends. Henry L. Stimson mentions in his memoirs the fact that, having found out Roosevelt in a quite needless bit of duplicity, for several years he avoided all contact with him. Henry A. Wallace committed to paper an account of Roosevelt's double-dealing (as Wallace saw it) in handling the Vice Presidential nomination in 1944. Other men have penned different stories.

Even the President's defenders could not deny that his treatment of that critical problem showed a certain irresponsibility, to be excused perhaps by the fact that he was already more ill than he realized. Because of this instability, Roosevelt was ready at times to abandon principle for expediency. Cordell Hull has described how unfortunate were the results of such an abandonment in the Neutrality Acts. And Mrs. Roosevelt writes:

"While I often felt strongly on various subjects, Franklin frequently refrained from supporting causes in which he believed, because of political realities. There were times when this annoyed me very much.

"In the case of the Spanish Civil War, for instance, we had to remain neutral, though Franklin knew quite well he wanted the democratic government to be successful. But he also knew he could not get Congress to go along with him. To justify his action, or lack of action, he explained to me, when I complained, that the League of Nations had asked

us to remain neutral. . . . He was simply trying to salve his own conscience. It was one of the many times I felt akin to a hair shirt."

Edward J. Flynn writes flatly: "The President did not keep his word on many appointments." There exists no question that he promised to make Louis Johnson Secretary of War, and broke the promise. All statesmen have to adjust principle to events and to public sentiment, and are sometimes compelled to revoke promises.

But Roosevelt was at times indefensibly evasive even with intimates like Flynn and Louis Johnson, and lacked straightforwardness. It can be said, too, that he often followed a Machiavellian technique in administration. He liked, for example, to put two or three men in positions of conflicting authority, so that they worked at loggerheads, with himself as ultimate arbiter.

It was in part his fault that Sumner Welles and Cordell Hull made the State Department for several years a maelstrom of rival policies and ambitions—although this is a complex story; it was in part his fault that Jesse Jones and Henry Wallace engaged at one time in a feud which sadly injured both the administration and the country.

Casual? Secretive? Vindictive?

Other unhappy traits might be copiously illustrated. Roosevelt could seem dismayingly casual about everything from a political speech to some of the issues at Yalta. He could be reprehensibly secretive; he kept the minutes of the Teheran Conference from Secretary of State Hull, and withheld from the American people the concession he made at Yalta to Russia on votes in the United Nations Assembly.

He was pettily vindictive towards some opponents, as Raymond B. Moley and James Farley testify in detail, and his attempted purge of certain southern leaders in 1938 is far from the happiest chapter in his career. All in all, we must repeat our conclusion that his character lacked the symmetry, harmony, and weight found in that of Washington and of Lincoln.

The Adequate Act for the Urgent Crisis

Yet without the highest inner greatness Roosevelt had an effec-

tive greatness of action, in relation to his time, which will cause him to be remembered as happily as any American leader. It is significant that Churchill, intellectually so much superior, always treated him with manifest deference, as a lesser man bowing to a greater. Was this simply because Roosevelt headed the more powerful state? I think not.

We must here face what seems to me a salient fact of history. A leader who puts second-rate qualities of intellect and character into first-rate application to the needs of his time may be a greater man than the leader who puts first-rate qualities into a second-rate application. Roosevelt signally illustrates this aphorism.

He had, to begin with, the gift of address: a gift for doing the right thing at just the right time. He had, in the second place, the greater gift of being able to put his personal forces into harmony with the best forces of his era.

Roosevelt's effective greatness included an unrivalled power of matching the urgent crisis with the adequate act; a power of timing an impressive measure to meet a desperate need. Take the first days of 1933, after his election. Never in a period of peace—never since the days of British invasion in 1814, or Confederate victory in 1863—had the nation been in such straits.

A Nation in the Grip of Fear

Between twelve and fifteen million men were out of work. Five million families, one-seventh of the population, were supported by public relief or private charity. Since the beginning of the depression, 4,600 banks had failed. Travellers through the broad industrial belt from Chicago to New York seemed to pass nothing but closed factory gates. Half the automobile plants of Michigan had shut down.

Along the Great Lakes, path of the largest marine commerce of the world, ships had almost ceased to move. In the iron beds of the Mesabi and Vermilion ranges scarcely a shovel dipped into the richest ores of the globe; in the copper mountain at Butte scarcely a drill was at work. The looms of southern textile factories were cobwebbed.

On railway sidings locomotives gathered rust in long rows; behind them huddled passenger and freight cars in idle hundreds, their paint fading. Middle-western farmers gazed bitterly at crops whose market value was less than the cost of harvesting; on the high plains, ranchers turned cattle loose to graze at will because it did

not pay to send them to the stockyards. In Pennsylvania and New England desperate men and women offered to work for anything, and some did work for a dollar a week.

Worst of all was the fear which gripped the nerves of the nation. To observers who travelled across the country in trains almost empty, through factory districts with hardly a wisp of smoke, the helpless populations sent up an almost audible cry of anger, bewilderment, and panic. The day before Roosevelt took office the crisis gathered to a climax.

By midnight of March 3 the closing of all remaining banks had been or was being ordered in every state. Never before had a change of Presidents taken place against a background so dramatic. The people, awakening on March 4 to read that their financial system was prostrate, gathered at noon by millions about their radios to listen in anguish, in anxiety, but in hope, to the voice of their new national leader.

Four Brilliant Months

There ensued four of the most brilliantly successful months in the history of American government. Roosevelt's first words promised energy: "I assume unhesitatingly the leadership of this great army of our people, dedicated to a disciplined attack upon our common problems." He improvised a series of policies, and mobilized an administrative machine, with a vigour that would have done credit to any wartime executive.

Within thirty-six hours he had taken absolute control of the currency and banking system, and called Congress in extraordinary session. He forthwith launched an aggressive attack along half a dozen fronts; upon banking problems, industrial prostration, farm distress, unemployment, public works, the burden of public and private debt.

One reporter wrote that the change in Washington was like that from oxcart to airplane. Congress laboured for ninety-nine days under the President's all-but-complete sway. Almost his every wish was obeyed by immediate votes. One staggered member said of the programme: "It reads like the first chapter of Genesis."

And as Roosevelt took these steps his courage, his resourcefulness, his blithe optimism, infected the spirit of the people; he gave Americans new confidence and the *élan* of a new national unity. When he gaily signed his last bills and departed for a brief sail up the Atlantic coast as skipper of a forty-five-foot sailing boat, the

nation realized that it had turned from stagnation to a bright adventure. As the President put it, we were "on our way."

The Greatest Crisis in Modern History

Nor was this an isolated spasm of leadership; for each recurrent crisis found the same resourcefulness called into effective play. When France fell, when the British Commonwealth stood alone against the deadliest foe that modern civilization had known, Americans gazed at the European scene in fear, in gloom, in perplexity. With a sense of dumb helplessness, tens of millions put their intensest feeling into the hope for Britain's survival.

Those tens of millions never forgot the morning of September 3, 1940, when they read the headlines announcing that Roosevelt had told a startled Congress of the transfer of fifty destroyers to embattled Britain; a defiance of Hitler, a defiance of home isolationists, a first long stride towards ranging America against the Fascist despots.

Nor could lovers of world freedom ever forget the dramatic steps that followed hard upon British victory over Hitler's air force and upon Roosevelt's re-election:

The Four Freedoms speech of January 6, 1941;

The introduction of the Lend-Lease Bill four days later, a measure which completely transformed American foreign policy;

The establishment of naval and military posts in Greenland and Iceland;

The proclamation of an unlimited national emergency;

The seizure of all Axis ships and Axis credits;

The Atlantic Charter meeting with Churchill off Newfoundland;

The establishment of convoys for American ships carrying aid to Britain;

And, in the background, the stimulation of American production to an unprecedented flow of guns, tanks, shells, and airplanes, with factories roaring day and night for the defence of democracy.

These years 1940-41 were, as we see now, among the greatest crises in modern history. They were met with an imagination, boldness, and ingenuity that can hardly be overpraised. Paro-

chialism, timidity, or fumbling might have been fatal; even a pause for too much reflection might have been fatal. We knew then that Roosevelt was determined to face the exigency with an intrepidity worthy of the republic.

But his intention was even more courageous than we supposed. For we know now that Harry Hopkins told Churchill in London early in 1941: "The President is determined that we shall win the war together. Make no mistake about it. He sent me here to tell you that at all costs and by all means he will carry you through."

The Supreme Pragmatist

Roosevelt's second quality of effective greatness was his ability to vindicate the American method of pragmatic experiment, of practical *ad hoc* action, step by step. He was essentially a Jeffersonian. He belonged to the school which, following the historic Anglo-American bent of mind, is attached to facts rather than ideas, to the enlargement of precedents rather than the formulation of dazzling visions.

Like all Anglo-American statesmen, he disliked sweeping generalizations, and especially generalizations of an intolerant, exclusive nature. He loved experimental advance, and was wont to say that if he were right sixty per cent of the time he would be satisfied.

Like Jefferson, he was willing to scrap a theory the moment a brute fact collided with it; he trusted experience, and distrusted flights into the empyrean. His so-called revolution, though unprecedentedly broad and swift, was like Jefferson's "revolution"; *it was simply a combination of numerous practical changes, the main test of which was whether or not they worked.*

The Rooseveltian changes did work. They did transform American life and the American outlook in two distinct ways. They converted a nation of aggressive individualists into a social-minded nation accepting the principles of the welfare state.

They changed an isolationist or largely isolationist nation into one committed to world partnership and world leadership.

The New Deal in home affairs was empirical, not ideological. The emergency programme I have sketched was a stopgap affair put together to tide over a crisis, and as Mrs. Roosevelt once put it, "give us time to think." It succeeded. Taken as a whole, the New Deal passed through two phases. In the first, 1933-35, the

government tried scarcity economics, reducing factory production, farm output, and hours of work, and doing what it could to cut off the American economy from the outside world.

In the second and better phase, 1935-50, it tried full employment, full production, enlarged distribution of goods, and freer international trade. This led directly towards the acceptance of Cordell Hull's ideal of cooperative internationalism.

American participation in world affairs after 1938 similarly passed through two phases. In the first, all the nation's energies were devoted to the defeat of the Axis. In the second, Roosevelt, Hull, Welles, and Stettinius moved step by step to construct a new world order, an enduring fabric of the United Nations.

In home and foreign affairs alike, action was always direct, experimental, and pragmatic.

The Despair of Dogmatists

It gave America a new social order at home, and a new orientation in global affairs. It worked; it is still working. But because it never approached a sweeping ideological revolution of the Marxist or totalitarian type, it was the despair of certain impractical theories *pur sang*.

For example, readers of that brilliant but extraordinarily half-informed and error-streaked book, Harold Laski's *The American Democracy*, will find an almost incredible analysis of what the author regards as Mr. Roosevelt's fundamental failure. This was his failure to smash the old America completely, and build a quite new America on the theories that pleased Mr. Laski.

The author draws an illuminating comparison between Lenin and Roosevelt. Lenin, it appears, made a marvellously precise and correct analysis of the maladies of modern society and economics; and he applied it with revolutionary courage. Roosevelt, on the other hand, was never converted—he never learned that “the foundations of the Americanism he inherited were really inadequate to the demands made upon its institutional expression.”

In particular, writes Laski, he failed to see that he should destroy “private ownership of the means of production”; that is, that the state should take over all mines, factories, transport, workshops, and farms. Roosevelt, as a result of his faulty analysis, unhappily failed to carry through a real revolution. What was the upshot?

In Russia, admits Laski, life became nearly intolerable. The price of revolution proved “almost overwhelming”—starvation of

millions, wholesale executions, vast concentration camps, the extinction of freedom.

In America, Laski admits, life was immensely improved. Industrial production became enormous; farm output grew tremendous; the standard of living steadily rose. But theory (says Mr. Laski) is everything. Lenin with his ideology was right; Roosevelt with his practical experimentalism was a failure!

This view of the matter would be emphatically rejected by all but a handful of Americans, including those who do not admire Roosevelt. Like Jefferson, like Lincoln, like Wilson, he was innovator and conservator at once; he made daring new additions to the American fabric, but he kept the best of the old structure.

While he converted Americans to the new ideal of social security, he strengthened their old faith in individual opportunity. He proved again that America needs no ideological revolution. He vindicated our traditional method of solving problems one at a time by pragmatic trial and error.

As one journalist wrote: "One remembers him as a kind of smiling bus driver, with that cigarette holder pointed upward, listening to the uproar from behind as he took the sharp turns. They used to tell him that he had not loaded his vehicle right for all eternity. But he knew that he had stacked it well enough to round the next corner, and he knew when the yells were false, and when they were real, and he loved the passengers."

Out of the Zone of Gloom

Roosevelt's third and most important quality of effective greatness lay in his ability to imbue Americans, and to some extent even citizens of other lands, with a new spiritual strength. Well into the twentieth century, most men in the New World had shared a dream of ever-widening adventure, a sense of elated achievement. They had dared much in coming to the new continent, and still more in mastering it. They were optimistic, self-confident, exuberant.

The heavy costs of the First World War, the disillusionments of its aftermath, the pressure of complex new social problems, and, above all, the staggering blows of the Great Depression darkened our horizons. We had entered the Shadow Belt which Bryce predicted in his book on *The American Commonwealth*.

From that zone of gloom, that numbed consciousness of frustration and failure, Roosevelt lifted Americans on the wings of his great new adventures—the alphabetical adventures of the AAA, the

NRA, the TVA; above all, on the wings of the greatest adventure in our history, the effort to rescue democracy from totalitarianism, and to organize the world to safeguard freedom.

For a few years Americans had felt lost, bewildered, paralysed. Roosevelt carried them to a Moabite peak whence once more they saw promised lands. They threw off their frustrations; he gave them a feeling that they were participating in a life far wider than their everyday parochial concerns. His self-confidence, his enthusiasm, his happy faculty of obliterating old failures by bold new plans, taught them that they were not imprisoned in a dead past but were helping build a living future.

The Eagles of the West

In the three centuries 1607-1907 Americans had triumphantly mastered their physical environment. Just so, in the next century to come, they would master their social and economic environment at home, and join other nations in a mastery of the world environment.

As the storm thickened after 1940, Roosevelt's rich voice grew more urgent—"bidding the eagles of the West fly on." Here at last, he seemed to say, is a task worthy of you; tyranny like Hell is not easily conquered.

Lincoln had once used a phrase which haunts his countrymen. "Thanks to all," he exclaimed after Gettysburg and Vicksburg, "thanks to all: for the great republic—for the principle it lives by and keeps alive—for man's vast future—thanks to all." A sense of man's vast future, a hope of shaping it for the better, never left Roosevelt's cheerful heart.

It is not often realized to what a degree the spirit of adventure kindled at home under the New Deal was carried over into world affairs when the United States faced the Axis menace. The defeatism of Hoover's day was gone. A hundred and sixty million citizens had been morally prepared to undertake unprecedented tasks. They grumbled; they cursed the hard luck of their grim era; they shuddered over the mounting costs—the colossal debt, the wasted resources; but they never doubted their ability to put the job through.

Effective Greatness

That change in temper was primarily Roosevelt's accomplish-

ment. It threw open, temporarily, the portals of a wider world. The change from oxcart was a spiritual, not a material, change. Never in our history have the emotion and resolution of the American people been so completely fused as when, as the first waves of American and British troops stormed across the Normandy beaches, Roosevelt sat at the radio leading the nation in prayer.

Effective greatness—that is Roosevelt's title to a high place in the world's history. Intellect and character are not enough; to them must be added personality, energy, and an accurate sense for the proper timing of action. Roosevelt was not an intellectual giant; but what of the personality that made the Arkansas share-cropper and the Harlem Negro feel they shared all the destinies of the republic?

His character did not awe men by its massive strength; but what of the gifts that made him so efficient in harmonizing labour, capital, and agriculture at home, and getting discordant nations to pool their wartime efforts?

He lacked the iron traits of Cromwell—but how incomparably more successful he was! He did not have the powerful grasp of Bismarck, but how much more beneficent was his career! In time his specific achievements may be blurred, but the qualities of his spirit will be remembered. For centuries Americans will think of him as one of those spirits who ride in front; we shall see his jaunty figure, his gaily poised head, still in advance of us. We shall hear his blithe voice in his words just before his death at Warm Springs on April 12, 1945:

"The only limit to our realization of tomorrow will be our doubts of today. Let us move forward with strong and active faith."

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ATHEROSCLEROSIS AND HEART ATTACK

DAVID M. SPAIN

THE INCIDENCE OF HEART ATTACKS among adult white males in relatively affluent occupations in the U.S. has reached epidemic proportions. From such attacks (coronary artery occlusions) the over-all U.S. death rate is now 500,000 a year, and 200,000 more die from strokes. At least 5 per cent of the adult males in the nation show signs of some form of heart disorder.

The basic disease responsible for most of these disorders and deaths is atherosclerosis. There is every indication that the prevalence of atherosclerosis in the U.S. is steadily increasing.

Not Simply Old Age

It used to be thought that atherosclerosis was a disease of old age and that its rising incidence might be due simply to the lengthening of the average life-span by the control of infectious diseases. This idea has now been refuted by a number of studies.

My colleagues and I have made a comparative examination in Westchester County, New York, of two samples of the population taken 20 years apart. The samples were comparable in that both

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groups covered the same age range (from 20 to 60), had records of good health before a fatal episode, had died of sudden causes not connected with heart disease, and had been autopsied after death, so that the extent of atherosclerosis in their coronary arteries and aortas was known.

The first sample consisted of people who had died of acute infections in the period between 1931 and 1935; the second was made up of people who had been killed in automobile or industrial accidents between 1951 and 1955. We found that the second group, representing a period 20 years later than the first, had a significantly greater amount of atherosclerosis. This was true for every age level: the young people in the second group had more atherosclerosis than the young ones in the first.

A similar autopsy study in Sweden yielded the same finding; the degree of coronary atherosclerosis in a population sample in 1958 was greater than in a sample from 1934.

Laboratory studies of experimental animals and post-mortem examinations of human infants have established that the development of atherosclerosis often begins shortly after birth. Fatty streaks signalling the beginning of atheromas have been found in many human aortas as early as the age of three.

In a group of U.S. soldiers killed in the Korean war whose average age was only 23, examination showed that most had extensive formations of atherosclerotic "plaques" in their arteries. In our study of accident victims in Westchester County we found that many 35-year-old males who had shown no indication of heart disease nevertheless had their coronary arteries so thickened by atherosclerosis that the channels were narrowed by 50 per cent.

It has become quite clear that atherosclerosis is a widespread disease of the young as well as the old.

The Nature of the Disease: Rusty Pipes

Atherosclerosis appears to be at least as old as the civilization of mankind. The aortas of some Egyptian mummies that were entombed more than 3,500 years ago show the typical lesions of atherosclerosis.

The modern name of the disease is derived from two Greek words: *athere*, meaning "porridge" or "mush," and *skleros*, meaning "hard." This apparently contradictory combination describes the fact that the lesion begins as a soft deposit and hardens as it ages. Materials that have been deposited from the bloodstream in the

inner lining of the major arteries penetrate the arterial wall; they form plaques that gradually grow and thicken the wall, thus narrowing the blood channel.

Eventually the thickening may close the channel entirely, or pieces of the plaques may break off and travel with the bloodstream until they are stopped in a smaller artery and thereby plug it. When the blockage occurs in the coronary artery, it produces a heart attack by cutting off the blood supply to the heart muscles; in the brain it produces a cerebral stroke; in the lower extremities it can lead to gangrene.

The circulatory system of the human body is a pipeline through which blood is pumped at a rate amounting to 4,300 gallons a day through 60,000 miles of pipe reaching every cell of the body. We might liken the atherosclerotic deposits in an artery to the rustlike encrustations that may form on the inner wall of a pipe.

The living system, however, is vastly more complex than any ordinary pipeline. The fluid coursing through the arterial pipes contains living cells and a mixture of liquids that are continually changing in chemistry and physical characteristics. The flow is pulsatile, varying from moment to moment in velocity, volume, and pressure. The living walls of the arteries themselves partake of the same changeability. They undergo a continual metabolism, conduct exchanges with the blood and the fluids bathing them externally, and are subjected to various kinds of stress.

In this dynamic system, subject to so many internal and external influences, unravelling the process that is responsible for atherosclerosis is akin to trying to solve a many-body problem in astronomy without knowing how many bodies are involved.

The atherosclerotic lesion is a complicated affair. When fully developed, it is composed of a considerable variety of structures and substances: blood and blood products, fibrous scar tissue, calcium deposits, complex carbohydrates, cholesterol (a fatlike, waxy substance normally present in the blood and body tissues), fatty acids, and lipoproteins. Apparently the fatty acids and cholesterol are the crucial substances responsible for the development of the lesion, because they provoke inflammation and scarring of the arterial-wall tissue.

How does the process leading to atherosclerosis begin? Examination with electron and light microscopes shows that the first visible event is the invasion of the inner lining of the artery by fatty substances. These substances appear mainly in smooth muscle cells and foam cells found within the lining.

ATHEROSCLEROSIS

In the spaces between the cells small amounts of cholesterol can be detected. Very fine fibres of a material that behaves like fibrin (a natural product of blood coagulation) also show up, both within the lining and on its surface. At this early stage the forerunner of the atherosclerotic lesion can be recognized in the form of fatty streaks, which when stained with a suitable dye are visible to the unaided eye as red streaks or spots on the lining surface.

Fats Trapped in the Arterial Wall

To solve the mystery of the origin of atherosclerosis one of the first questions we must answer is: How are the fatty materials deposited in the arterial wall? There are several current hypotheses. The one most widely accepted is that the fatty substances are transported into the wall by plasma, the blood fluid, and are trapped within the wall.

It is believed that the plasma itself, under the force of the blood pressure, can leak all the way through the wall of the artery in small amounts, which then return to the bloodstream by way of the lymph-circulating system.

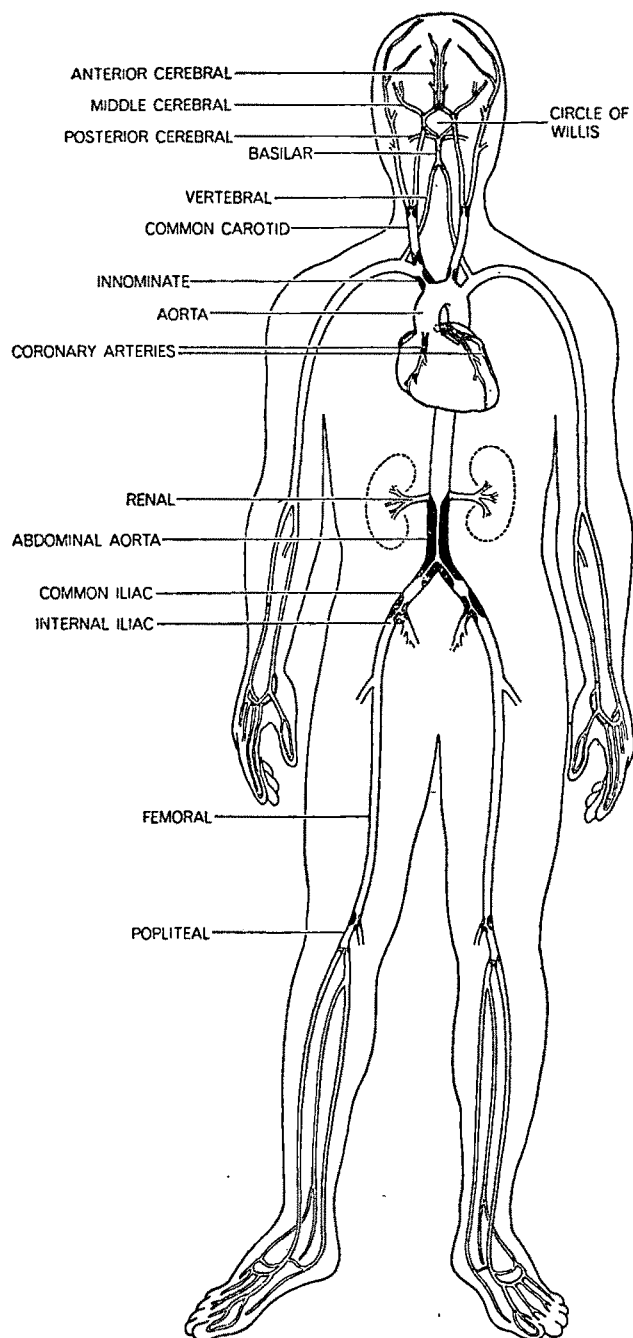
The large lipoprotein molecules or complexes, on the other hand, cannot filter through the wall so easily; consequently they may tend to pile up within the wall, particularly if the plasma carries an excessive quantity of them.

The known structure of the walls of the major arteries gives support to this view. The wall of an artery consists essentially of three layers: outer, middle, and inner. The outer layer and part of the middle one are nourished by a system of fine blood vessels (called vasa vasorum) that come from the outer coat and go inward only as far as the middle layer.

The nourishment of the inner portion of the arterial wall is taken care of by nutrients filtering into it from the bloodstream in the channel of the artery. Between the inner and the middle layer of the wall there is a curtain of elastic tissue. This tends to impede the flow of fluids through the wall. Hence it may act to trap substances that follow the gradient of flow, which in an artery is from inside to outside. Significantly, atherosclerosis rarely develops in veins, where the flow gradient is from outside to inside.

That lipids and other large molecules from the bloodstream can penetrate the arterial walls has been demonstrated conclusively by experiments with radioactively labelled cholesterol and other materials. These labelled materials usually turn up in highest

AMERICAN REVIEW



Favoured sites of atherosclerosis are indicated in the dark-shaded portions in this diagram of the major arteries. There is a tendency for the disease to begin at points where an artery branches.

Illustration by Thomas Prentiss.

concentration in areas in the walls that are already atherosclerotic. It has also been learned that in the early lesions of atherosclerosis the pattern of lipids present in the lesion is strikingly similar to the pattern in the blood.

Are there special conditions that favour the infiltration of lipids into the arterial wall? At least one interesting finding points in that direction. It was found that the administration of high doses of vitamin C to experimental animals inhibited the accumulation of lipids in the walls of their arteries. Conversely, when animals were fed a diet on which they developed a vitamin C deficiency, the inner lining of their arteries became more permeable: its cells were more widely spaced.

Abel Lazzerini-Robertson, Jr., of the Cleveland Clinic, who has studied the behaviour of arterial-lining cells in tissue cultures, suggests that there may be a self-feeding process that generates expansion of an atherosclerotic lesion. Some of these cells, he says, respond to an excess of lipids by requiring more oxygen.

When they fail to obtain enough oxygen to satisfy this increased need, the cell membranes become more permeable to lipids. Thus a vicious circle is set up: the more lipid enters the cells, the easier it is for additional lipid to invade them.

Other Theories

As I have mentioned, hypotheses other than the lipid-infiltration theory have been proposed to account for the origin of atherosclerosis. One of these suggests that a disturbance of the blood-clotting mechanism, in combination with an injury to the inner wall of the artery, may result in the formation of a fibrin clot on the surface of the wall. Fatty substances from the bloodstream may then accumulate in the clot, particularly if there is a considerable amount of such substances in the blood, and this focus may generate the atherosclerotic lesion.

Another hypothesis proposes that some alteration of the cementing substances (mucopolysaccharides) in the artery wall that occurs after an injury to the wall may open the way to local invasion or synthesis of lipids. It may be, indeed, that there is some truth in all the hypotheses. There is reason to believe that atherosclerosis can originate in a number of different ways.

Once the process has started it develops a kind of life of its own. Enzymes within the artery wall break down the fatty complexes, liberating cholesterol and fatty acids. These act as noxious foreign

agents and excite inflammation of the wall tissues. Scar tissue develops.

Fragile capillaries growing into this tissue tend to rupture and thus lead to more inflammation. The artery lining may ulcerate, and blood from the bloodstream clots around these breaks. Gradually the atherosclerotic lesion expands in size, and as the scar tissue and calcium deposits accumulate, the lesion stiffens and renders the arterial wall brittle and weak.

The Favourite Sites

Atherosclerosis may occur simultaneously in many of the body's major arteries. There are, however, certain favoured sites. Much depends on the shape and position of the vessel. For example, the coronary arteries, which receive the full impact of the pulsatile blood pressure against their walls during systole (the heart's pumping cycle), have a high tendency to develop atherosclerotic lesions; on the other hand, the renal arteries, which branch from the aorta at right angles and have a low resistance to blood flow and therefore do not feel the pulsatile impact nearly as much, are relatively free of the disease.

The vessels that are most often, and most critically, attacked are the coronary arteries, the aorta, the arteries in the neck and brain, and the iliac and femoral arteries supplying blood to the lower extremities.

When thrombosis (formation of a blood clot) occurs in a narrowed coronary artery, the resulting partial or complete shutoff of blood supply to a portion of the heart muscle may have various effects: angina pectoris (pain in the chest), a myocardial infarct (destruction of part of the heart wall), irregularity or weakening of the heartbeat or sudden death due to complete failure of the heart.

If the arteries to the brain become clogged, the result is a massive stroke causing paralysis or death. "Small" strokes, causing only slight or temporary paralysis of particular functions, may arise from fragments that break off from the atherosclerotic lesion and flow on to clog small vessels in the brain, thereby killing small areas of brain tissue.

When atherosclerosis and clots clog a major artery to the legs, the result may be severe pain in these extremities and sometimes so much destruction of tissue that the gangrenous limb must be amputated.

In the aorta the lower section, passing through the abdomen, is

particularly subject to atherosclerosis. The disease may so weaken the arterial wall that a portion of it balloons out, forming an aneurysm. Aneurysms of the aorta may press on the important organs in this area, interfering with their functions and causing pain. The rupture of one of these aneurysms usually produces massive haemorrhage and death.

One of the peculiarities of atherosclerosis is that even among the susceptible arteries it often selects particular ones for attack. For example, an individual may have severe atherosclerosis in his coronary arteries but very little of the disease in the cerebral arteries, or extensive lesions in the aorta with very little involvement of the coronary arteries. This form of selectivity is reflected in the disease rates of certain peoples. In Japan, for instance, strokes are common but heart attacks are relatively rare.

The Role of Diet

It is natural to suspect that diet has a great deal to do with atherosclerosis, and for more than a century the primary suspicion has focused on cholesterol. As early as 1847, a German anatomist, J. Vogel, reported that atherosclerotic arteries invariably contained cholesterol. In 1909 a Russian army medical officer, A. Ignatowski, observing that the army officers, who were of the meat-eating class, had many more heart attacks than the vegetarian peasants, undertook an experiment. He fed rabbits animal products and found that their aortas did indeed develop atherosclerotic lesions.

A few years later a pair of Russian investigators, N. Anitschow and S. Chalatow, followed up with a series of careful studies that became classic references in this field. When they fed rabbits fat and cholesterol, they observed that the cholesterol level in the animals' blood rose and atherosclerotic plaques appeared in their arteries. After cholesterol feedings were discontinued, lipids gradually disappeared from these plaques.

The Villain: Cholesterol?

Cholesterol is indeed an inevitable suspect, because the formation of the atherosclerotic lesion is essentially an inflammatory response to this substance. The involvement of cholesterol in the disease has been demonstrated in many different ways. Experimenters have produced the disease by cholesterol feeding in many animals, including rabbits, rats, guinea pigs, chickens, dogs,

and monkeys. In almost every case in which the disease is induced experimentally the animals' serum shows a rise in cholesterol as a prelude to the atherosclerosis.

In primates the disease exhibits all the features that occur in human beings. At the human level a cooperative study in Britain and the U.S. found that peptic ulcer patients who were treated with the Sippy diet (rich in milk and cream) had elevated levels of cholesterol in their serum and suffered twice as high a rate of heart attacks from coronary atherosclerosis as ulcer patients who did not use this diet.

Conversely, patients with multiple myeloma, a malignant disease that tends to lower the serum-cholesterol level as one of its effects, have an unusually low rate of heart attacks. People who have died of so-called wasting diseases (essentially malnutrition) show a low lipid content in their arteries, which suggests that the loss of fat may have reduced their atherosclerotic lesions.

On the other hand, people with diseases or conditions that are usually accompanied by a high cholesterol level (diabetes, nephrosis, hereditary elevation of lipids in the body) tend to develop atherosclerosis at an earlier age and more extensively than usual.

Yet it has become increasingly clear that atherosclerosis cannot be explained simply in terms of cholesterol, or even a fatty diet. Certain species of pigeons spontaneously develop atherosclerotic lesions closely resembling those of human beings although these birds eat no animal fat. (Spontaneous atherosclerosis is also found in dogs, baboons, ostriches, pigs, and whales.)

Laboratory experiments have shown that exposure to cold, elevation of the blood pressure, anti-thyroid substances, high doses of vitamin D, lack of oxygen, and other factors can contribute to the development of atherosclerosis.

On the other hand, the disease process can be inhibited in animals by undernourishment, thyroid hormones, heparin (the anti-clotting agent), fat-eliminating agents, unsaturated fats, and sitosterol (a precursor of steroid hormones).

The Evidence from Epidemics

Even the evidence of epidemiology is not entirely clear. It is true that populations whose diet contains a relatively small amount of saturated animal fats and cholesterol tend in general to have a low blood-cholesterol level and a low incidence of heart attacks.

To illustrate with some often cited statistics: The South African

Bantu, among whom death from coronary atherosclerosis is exceedingly rare, have a diet very low in fats (average 17 per cent of the total caloric intake) and a mean serum-cholesterol level of only 166. In Europe, where death from this disease is common, the average fat intake amounts to 35 per cent of the diet and the serum-cholesterol level is 234.

In the U.S., where the coronary death rate is very high, the average fat intake is between 40 and 45 per cent and the serum-cholesterol level is about 250.

Moreover, there is some evidence that people who migrate from a country with a low heart-disease death rate to one with a high death rate, and adopt the diet and cultural pattern of the latter country, tend to acquire a rise in the cholesterol level and an increase in the rate of heart attacks. This, at least, has been found to be true of Yemenite Jews and Japanese who have migrated to the U.S.

Nonetheless, it is not easy to determine exactly what factors separate the immune populations from the vulnerable ones.

Among the peoples distinguished by exceptionally low rates of heart attack are the farmers of Guatemala, the Yemenite Jews, the South African Bantu, the Chinese, the Japanese, and the Apache Indians living on reservations.

Very high heart attack rates, on the other hand, are found among the adult white male inhabitants of New York, New Orleans, England, Sweden, and parts of Finland.

What do the latter populations have in common that differentiates them from the first group? That is one of the principal problems that today engages the attention of many investigators of the causes of atherosclerosis.

To narrow down the search for the significant environmental, biological, or dietary factors, it would be very helpful if we could identify the individuals in each population who have atherosclerosis. Unfortunately this is difficult to do in a live population. Atherosclerosis has aptly been called an "iceberg" disease, because only 5 to 10 per cent of those whose arteries are affected show any clinical sign of illness.

The Search for Clues

Recently a method has been developed for examining the arteries in the body by X-ray. In this method, called angiography, a radiopaque dye is injected into the bloodstream and the artery is

then X-rayed to show whether or not the flow is normal. A narrowing or other abnormality of the channel is taken to indicate atherosclerosis. The technique is not, however, sufficiently simple, accurate, or safe to be used as a screening procedure for the general population.

The cholesterol level in the blood is not itself a reliable index of the disease. In any population the level varies as a continuous spectrum, and one cannot find a dividing line that separates the atherosclerotic individuals from those with healthy arteries. Indeed, many people with low serum-cholesterol levels have heart attacks whereas many with high levels do not.

The investigation of atherosclerosis must therefore rely mainly on post-mortem examinations and studies of people who clearly show signs of the disorder by their coronary disease or heart attacks. As everyone knows, there is now a very large accumulation of epidemiological studies that have sought to shed light on the factors associated with heart disease.

These include the worldwide studies of Ancel Keys of the University of Minnesota and his associates, the famous mass studies in Framingham, Massachusetts, Albany, N.Y., and Chicago and our own recently completed study of 10,000 males in Westchester County. All these studies have arrived at remarkably similar conclusions about the high-risk factors associated with coronary atherosclerosis.

To sum them up in one profile, the most vulnerable person would be an adult male who had a high lipid content in his blood and high blood pressure, who engages in little physical activity and is markedly obese, and who is a heavy smoker of cigarettes.

The difference between men and women in the rate of heart attacks from coronary atherosclerosis is striking. Our observations indicate that, in the age levels up to 55, deaths from such attacks are at least 10 times more common among men than among women.

It seems that the factor protecting women is the female hormone estrogen. Women who have had their ovaries removed (thus reducing the estrogen output) tend to have more atherosclerosis than those with their ovaries intact. Injections of estrogens have been found to be capable of lowering the cholesterol level in the blood and of altering lipoproteins from the type associated with the development of atherosclerosis.

At the Michael Reese Cardiovascular Research Institute in Chicago, Jeremiah Stamler and his colleagues demonstrated that the development of atherosclerosis in the coronary arteries of young

male chickens that had been fed cholesterol could be stopped by injecting estradiol benzoate, a variant of the female hormone. On the strength of all the experimental evidence, estrogen injection has been tried as a treatment to inhibit atherosclerosis in men, but it is not promising for widespread use because of its feminizing effects.

Blood Pressure?

High blood pressure is a serious contributor to atherosclerosis only when it is combined with a high cholesterol level in the blood, in which case the pressure forces cholesterol into the artery walls. The Apache Indians commonly have high blood pressure but seldom suffer heart attacks, probably because their blood content of cholesterol is low.

Our studies of New York men indicated that the combination of high blood pressure and high cholesterol carries a high risk. In the age group between 36 and 50, men with this combination had a rate of atherosclerotic heart disease more than four times higher than that of men with normal blood pressure and lower serum cholesterol; the respective disease rates were 7.6 per cent and 1.8 per cent.

In the cases of the other risk factors revealed by the epidemiological studies—lack of physical activity, obesity, cigarette smoking—no direct tie to the atherosclerotic process has been found. Just how these conditions contribute to heart disease remains to be determined.

Heredity? Stress? Diet?

Many other elements that are suspected of contributing to atherosclerosis have been investigated. Undoubtedly heredity is an important factor. Atherosclerosis is frequently associated with diabetes and hypertension, diseases that are known to stem from genetic causes. Moreover, it seems likely that an individual's relative ability to metabolize and otherwise handle lipids plays a large part in his susceptibility to atherosclerosis.

Studies have shown that identical twins tend to have about the same blood-cholesterol level, whereas twins who are not identical are much more likely to differ from each other in this respect. There have also been dramatic cases in which identical twins have had heart attacks at the same time in the prime of life.

Another factor that has had much attention is emotional stress,

arising either from the individual's mode of life or his constitutional disposition. Unfortunately, most of the studies of this factor have been so poorly conceived or executed that the conclusions are uncertain or questionable. There is no firm information so far to prove or disprove the hypothesis that emotional stress contributes to heart attacks.

We come back finally to the diet, which today holds the centre of research attention as the factor most likely to be primarily responsible for the epidemic of atherosclerotic heart disease. There is no gainsaying the fact that this disease is a dominant feature of industrialized, affluent societies.

If we look at metropolitan New York, where the disease has increased strikingly in the past 30 years, we can see that in the same period there has been a marked change towards a more luxurious and more passive manner of life, characterized by great increase in the use of the automobile, in automation of occupations and domestic tasks, and in the animal-fat content of the average diet.

The insurance companies have been compelled at frequent intervals (about 10 times in the past 30 years) to revise upward their statistical tables of average weights.

Animal Fat?

In a report to the White House Conference on Children and Youth, Stanley Marion Garn of the Fels Research Institute noted a disquieting trend in the eating habits of the younger generation in the U.S. today.

"If 35 per cent of his calories comes from fats, is Junior being prepared, starting in nursery school, for a coronary occlusion?" asked Garn.

To what extent can the animal-fat diet be specifically incriminated on the basis of the research done so far? The epidemiologist Ernest L. Wynder has suggested four criteria to determine whether or not a given factor can be regarded as a cause of a disease:

- (1) the incidence of the disease in a population must be proportional to the population's exposure to the factor;
- (2) the distribution of the disease—in geography, time, by sex, and among various population groups—should be consistent with the distribution of the suspected factor;
- (3) the factor should produce the same disease, or one corresponding to it, in experimental animals in the laboratory; and

(4) the removal of the factor or the reduction of exposure to it by the human population should reduce the incidence of the disease in the population.

The animal-fat diet has fulfilled the first three of these criteria for atherosclerosis in many tests. The fourth piece of incriminating evidence—reduction of the disease in man by reduction of the exposure—has not yet been established.

It is currently being tested, however, in a massive dietary study, expected to involve ultimately 100,000 men; that is being conducted at five major centres under the auspices of the National Institutes of Health. If this and similar studies demonstrate that the fatty diet is indeed a major cause of atherosclerosis, there may be hope that the epidemic increase of the disease can be halted and reversed.

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FOREIGN AID AND THE BRAIN DRAIN

JAMES A. PERKINS

THE MAN WHO NEVER QUESTIONS the status quo, who believes that his destiny is inevitably controlled by fate or the natural world, who commits himself to the faithful repetition of habits of work and patterns of life his ancestors knew—such a man, at whatever end of the economic spectrum he may be found, cannot assist or contribute to the modernizing of his world.

The Components of Change

A man capable of change must be prepared to abandon the past as a guide to the present and to replace acceptance with dissatisfaction, even though the path ahead may be unclear.

This first big step in human development must be nourished by exposure to change. And here education, mobility, and visible example can be potent forces indeed. The education that gives young people skills can also give them a sense of new-found powers and leave them impatient with the ways of their fathers and the primitive life of bush, village, or *favela*.

Literacy opens up still other avenues of communication that can bring in visions of the world outside. Sometimes there may be a radio or a television set to stimulate the imagination.

The new mobility can also bring change. The peasant who travels to the city market may find his route changed by a new road and the city transformed by a new airport. He is confronted with

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cars, machines, people in strange dress, and he returns with unfulfilled desires and comparisons for his own life. He may do nothing more about them than to chew an extra supply of narcotic leaves — but he may also decide that his son had better go to school.

A pervasive influence to which the whole emerging world has been and will increasingly be subjected is the example set by the outsider — the foreign missionary, the military man and the businessman, and now the Peace Corps worker and the consultant. For good or ill, these people are in direct contact with those in a traditional society who would learn not only specific skills but new attitudes towards work and improvement. The example the outsider sets may stimulate or jar, but it can be a vigorous force for change.

Discontent and Hope

Not everyone is exposed to change, nor does the exposure always affect everyone the same way. But those who do respond are ready for stage two — the stimulation of desire for improvement. Dissatisfaction with the status quo is not enough by itself to lead man towards a constructive social goal. He must have hope fed by achievement. The man exposed to a bit of city life, educated enough to read the newspaper and understand the national radio broadcasts, and touched by envy of status and power can as easily sink back into apathy or drift aimlessly through life as he can step up the ladder of social change.

The difference is concrete accomplishment, however small, and the prospect for more accomplishment. His larger hopes must be encouraged by the realization of his smaller ones as he moves towards that well-publicized revolution of rising expectations.

The third stage, granted to those who have survived the incentives of the second, comes when man begins to look at himself as an individual, with unique talents and particular needs to express them. At this stage he is indeed prepared to make the break with his family, tribe and village and to develop himself into productive unit for the service of those around him.

But this is a far more sophisticated business, because the desires of the individual and the needs of his society may be only imperfectly meshed. They may, further, be frustrated by the social structure and the mores of the society itself. By now, however, the new man has become a much more independent and even abrasive factor in society; he will not be content with just any education or

any set of skills if he cannot see, sooner or later, a connection between his new training and the fulfilment of his new desires.

Reform of Traditional Education

It is at this stage that a traditional system of education will come under intense pressure for reform, both from its dissatisfied consumers and from those who feel responsible for social improvement. Support of traditional educational systems — those based on aristocratic notions of who should be allowed to have an education, on ancient patterns of lecture-response, on outmoded and irrelevant curricula, on part-time faculty — can in fact be counterproductive, for such education will only discourage our new man and block his progress. It is also for those at this stage of development that the setting of educational priorities is so important.

Exclusive emphasis on literacy programmes may be the key factor in giving a sense of achievement to our dissatisfied man in stage two, but if educational priorities have not been worked out carefully — if all the investment of money and talent has gone into literacy training — there may very well be no one available to teach the skills needed by those who have reached stage three. And it is certain that without attention to those in the third stage of development, there will be a severe shortage of teachers for the next generation of illiterates.

Finding a Place

Given a degree of literacy, mobility, outside example, hope confirmed by experience, and a system of education that will teach him the skills he needs, our new man is well on his way towards modernization. He has also become a force for change. But he soon discovers that his biggest task remains. He has found his independence, and now he must find his place.

It is not enough to protest: the modern man must participate, and participation involves new structure, new rules, and new human relations. At this point, the process of assistance becomes complex indeed, for here individual training must be supplemented by social understanding of ever increasing difficulty.

In this fourth stage, the process of choice becomes complex as well. For it is here that the economic man must face the problem of organizing the society around him in a way that will somehow protect his interests. He may choose the short run, an authoritarian

rule that will abridge the tedious process of educating his former friends and family. He may see the advantages of the long run, a more open society that will make development more difficult but perhaps more sure.

Whatever his predilection, he will have to develop a social philosophy that justifies, at least to himself, the exercise of authority with respect to his interests. In short, to become an effective economic man he must become a political man.

During all this process of growth and development, he will have undergone profound changes. He will have a life independent of his family, tribe, or village. He will come to value ability rather than status, talent rather than lineage. He will recognize the importance of professional skills. He will have renounced one set of ties only to accept another — but the difference is important: the old ties were involuntary, the new he chose freely himself.

He will become during this process a modern individual with a new sense of identity. In his more ebullient moments he will feel that at last he can determine his own fate; in more realistic times his optimism will be tempered by the obvious intractability of mankind. Whether he realizes it or not, he will be a modern man, and his country's development and hope will turn on his energy and judgment.

Even from such a rough analysis, it must be clear that the man who survives this difficult climb is rare indeed. Some may make it in one generation; for others to reach stage three or four may be the achievement of many slow and painful steps by many generations before them. Our current focus on this precious pool of men and women is well considered.

Only such people can manage a modern state. Only they can assume the large responsibilities of a modern government and bring to it the efficiency and dispassion such a government requires. Only these people have the attitudes and the ambitions necessary to master the new and important callings of science, medicine, and the arts.

Self-defeating Assistance

In our programmes for assisting these new men, we are doing some things right. The current drive towards literacy is sound, for without widespread literacy the world will be forever anchored down by those mired in stage one. The emphasis on training teachers for secondary schools is vital for the development of those

moving into stage three. Our support of strong universities makes possible the widening of horizons so necessary to the whole educational system.

Our exchange programmes, aimed at increasing the traffic of persons to this and other countries, are on the right track as well. No more yeasty influence exists in the modernizing countries than those men and women who have had an educational experience in Europe or the United States. They will always know their life can be different, and they will have ideas about how it can be changed. They will always feel that they are part of a larger society.

One has only to spend a day in the Department of Agriculture in Thailand, for example, to realize that there is a direct connection between the overseas training of its top officials and the progressive activity of the department as a whole.

It is at just this point, however, that our foreign and domestic policies come into conflict. For one of the gravest problems facing the underdeveloped world is the fact that all too many of its best-trained men and women leave home and never return to the departments of agriculture or the schools or the hospitals.

If we accept the fact that those who climb the ladder of change are a minority at best, that the climb was difficult, and that the presence of these people determines whether or not a foreign assistance programme will succeed, then we must understand that it is far more critical for the less developed world to lose them than it is for the more developed world to gain them.

Yet it is just this loss we not only countenance but encourage. While with one hand we give laboratory equipment, train teachers, send our own teachers, build buildings — all on the very simple propositions that the modernization of the underdeveloped world is in our immediate and demonstrated self-interest and that the critical component of a modernizing society is its modernizing men — with the other hand we take away not only the raw materials but the very people who have been so carefully trained to develop them.

Conflicts of Interest

The basis of this conflict lies in the fact that growth is the law of life for mature economies as well as young ones. The needs of the developed world are both varied and insistent, cutting across the requirements of the less developed countries in almost every direction. A mature country wants access to raw materials which it can transform into finished products itself. The supplying

country believes, with justice, that it must learn to convert its own raw materials if its workers are to advance their knowledge and use their skills.

Again, every responsible advanced nation is concerned about such things as gold outflow, balance of payments, trade and dollar gaps, and seeks to protect its growth by favourable import quotas and other aggressive actions in the world market. At the same time, a young and growing economy needs growing markets, and the pressure to export increases as the economy matures. The less developed country does not just want to buy cars, it wants to make them; eventually it may even want to export them.

The conflict can be severe enough between countries as sophisticated as Canada and the United States when, for example, one wants to sell finished paper and the other insists on importing only the pulp. At what a disadvantage, then, is Peru or the Congo in the face of the insatiable American or European colossus?

In all of this, an overriding interest — and responsibility — of a developing nation is to create the jobs and the incentives for those who are moving up the ladder and demanding more sophisticated employment. But it is precisely these people who find employment in the United States so much more financially and professionally rewarding. And it is just their talents and skills that fit so well into our own shortages.

The result is that we have gradually changed our immigration laws to reduce the inflow of unskilled help, so badly needed in the last century, in favour of the skilled help we now require. It is no longer the call to "Give me your tired, your poor, your huddled masses"; now we ask for your alert, your privileged, your brainy, your talented. Our machines can do the menial work. Today the emphasis is on technical skill, sophisticated training, and adaptability to modern society.

Bleeding the Poor?

The conclusion is inescapable. The United States as a mature but still growing nation has an apparently unlimited demand for precisely those people most desperately needed by the countries we are spending billions of dollars annually to help.

The figures are by no means complete either for the flow of assistance or the counterflow of brainpower. But the statistics that have been developed on the so-called "brain drain" present a sombre picture.

*human involvement has altogether ceased. When this possibility has ceased, so has the possibility of growth.*²³

For Baldwin the means whereby the gap of communication between the sexes is overcome is love — love which is “so desperately sought and so cunningly avoided.” What is the nature of this love?

*Love takes off the masks that we fear we cannot live without and know we cannot live within. I use the word “love” here not merely in the personal sense but as a state of being, or a state of grace — not in the infantile American sense of being made happy but in the tough and universal sense of quest and daring and growth.*²⁴

This kind of love reconciles Vivaldo Moore and Ida Scott at the end of *Another Country* after each has been unfaithful to the other and shows that their sexual unfaithfulness is not merely an isolated aspect but an expression of their whole being as individual persons.

*He stared into his cup, noting that black coffee was not black, but deep brown. Not many things in the world were really black, not even the night, not even the mines. And the light was not white, either, even the palest light held within itself some hint of its origins, in fire. He thought to himself that he had at last got what he wanted, the truth out of Ida, or the true Ida. . . .*²⁵

Love as “quest, daring, and growth” exercised in the crucial situations can force men and women “to see themselves as they are, to cease fleeing from reality and to begin to change it.” The alternative in Baldwin’s perspective is the truth that “people who shut their eyes to reality simply invite their own destruction.”²⁶

The Place of Religion

The question has often been posed as to what extent Baldwin incorporates the element of religion in his literature. He castigates organized religious institutions. He seems to take literally the idea

²³ “The Northern Protestant,” *Nobody*, p. 131.

²⁴ “The Male Prison,” *Nobody*, p. 128.

²⁵ *Another Country*, p. 361.

²⁶ Baldwin, “Stranger in the Village,” *Notes*, p. 148.

of Karl Barth that the church is not only the place where man meets God but it is often the place where he makes his stand against God.

In *Giovanni's Room* the prison chaplain performs perfunctorily his duties without emotion and without involvement. *Go Tell It On the Mountain* portrays vividly the urban storefront church with its shallow sentimentality, its perversity of ethical concern, its confused theology.

In *Blues for Mister Charlie*, the Negro minister, the Reverend Mr. Henry, lies pathetically at the trial of his son's murderer, and the white minister, the Reverend Mr. Phelps, in his attitude towards Negroes embodies the worst of bigotry, ignorance, and pride.

None of this signifies, however, that Baldwin is either indifferent to or neglectful of religion per se. As Norman Mailer recently asserted, Baldwin has a definite "religious interest" in his works.²⁷ I think there can be no doubt that Baldwin's imaginative literature contains what Nathan Scott has designated as "the religious dimension."²⁸ The question, then, is "what constitutes this religious dimension"?

Paul Tillich has argued cogently that no cultural creation (including the work of literature) can hide its "religious ground," which is "the ultimate concern" witnessed to and expressed in the work. According to Tillich, in the depth of every cultural creation "there is an ultimate and all-determining concern, something absolutely serious" which is its religious dimension.

Within this perspective of religion, Baldwin's works present in character, plot, and theme the concern of man's relationship with man by means of love within all the vicissitudes and vagaries of human experience. In this ultimate concern, as Baldwin states so boldly, "if the concept of God has any validity or use, it can only be to make us larger, freer, and more loving. If God cannot do this, then it is time we got rid of Him."

Baldwin, the writer, gives literary expression to the point of view about religion which Tillich, the theologian, expresses: "Religion is not a special function of man's spiritual life, it is the dimension of depth in all of its functions," and "the metaphor depth" means that "the religious aspect points to that which is ultimate, infinite, unconditional in man's spiritual life."²⁹ For

²⁷ Norman Mailer, "Norman Mailer Versus Nine Writers," *Esquire*, July 1963, pp. 64-69.

²⁸ Nathan Scott, Jr., *Modern Literature and the Religious Frontier* (New York, 1958), pp. 38-39.

²⁹ Paul Tillich, *Theology of Culture* (New York, 1964), pp. 3-9.

According to one UNESCO report, 43,000 scientists and engineers emigrated to the United States between 1949 and 1961, "many" of whom came from the less developed countries. Of the 11,200 immigrants from Argentina alone between 1951 and 1963, nearly half were technicians and professional people, 15 per cent were high-level administrators, and 38 per cent skilled workers. In 1964-65, 28 per cent of the internships and 26 per cent of the residencies in U.S. hospitals were filled by foreign graduates — nearly 11,000 in all — and 80 per cent of the foreign interns and 70 per cent of the foreign residents were from developing countries.

The drain from Asian nations, particularly Taiwan and Korea, is the most serious: it is estimated that over 90 per cent of the Asian students who come here to study never return home.

In Europe — especially in Britain, which is inadvertently bleeding the Commonwealth of its most highly trained men — the situation is much the same. As John C. Shearer correctly puts it, "The movement of high-level human resources may, to a great extent, account for the persistent and ever widening gaps between rich and poor areas."

Here is the cruel fact of life: we are in competition with the results of our own assistance policies. While we support the idea of foreign development, our domestic needs may be quietly making hash of our best efforts abroad. In that case, foreign aid might simply be a misnomer for domestic assistance with overseas implications. What can we do about it?

What Must We Do?

First, we must find out the facts. No one seems to know, even roughly, what our actual support of manpower development adds up to. We know even less about the drain of foreign talent, either in numbers or cost. We should get these figures and then make them visible for public scrutiny and debate.

Then we must concentrate on a variety of measures that will encourage this precious pool of manpower to put its talents to work at home. This part of the job will call for both imagination and understanding. We must recognize, on the one hand, that the United States is a land of opportunity and hope, a country whose doors have traditionally been open to those seeking a new life and a new challenge. It is in many senses a generous nation as well as an omnivorous one.

Its government and its educational institutions have adjusted

FOREIGN AID

themselves with considerable care, perhaps even some success, to the needs of the many (now officially 82,000, but more likely well over 100,000) foreign students who come here in increasing numbers each year. And now these institutions are adding to this care their concerted efforts to induce these foreign students to return home.

But we must also recognize the fact that we can make it too easy for the talented and the skilled to come here and to stay, and that there are ways we can help to make "home" a more attractive place to be.

We can, for example, close up some of the more selfish loopholes — the special waivers that allow students to stay here in our own "national interest," particularly if they can teach a foreign language or be useful to the defence department; the cynical exploitation of foreign students by the diploma mills; the all-too-easy solutions to our need for teaching assistants, laboratory aides, and medical workers, offered in the name of scholarships and fellowships. We can increase the productivity of our own medical and professional schools to relieve our dependence on foreign nationals.

We can, as many students of this subject have suggested, raise our entrance requirements for all foreign students, limit the admission of undergraduate foreign students, tailor their education more carefully for problems they will meet at home, and place far more emphasis in our aid programmes on the upgrading of universities abroad.

Perhaps even more important will be the incentives that we can help the developing countries create to draw the interest of their best people.

Gregory Henderson of Harvard has suggested the use of return scholarships and a special Peace Corps effort to put foreign students to work in their native countries. Some American business firms are beginning to search out qualified foreign students in this country for employment at home.

Recently, a group of business leaders established a fellowship programme for the training of students "who have a definite intent to return to their home countries at the completion of their fellowships." Where the emigration occurs because there is a temporary oversupply of university people — as is the case currently in Taiwan and India — arrangements might be made to lend this surplus to other less developed countries or to retain these people for tasks that fit the level of their own country's development.

Whatever the specific measures — and with a little imagination the list can be endless — we must understand that modern men,

wherever they are, have the same needs. The United States has come to be a mecca — and Europe hardly less so — because it provides a continual education, stimulation, mobility, contact with new ideas, opportunities to create and to serve.

But the world has now become small enough and its remotest corner accessible enough so that these modern men can reach out to one another from any point on the globe.

The university that keeps its avenues of communication open to alumni wherever they may be, the business that gives its foreign employees a chance to move around and bring home new ideas, the less developed country itself that uses its trained manpower to the full—all contribute to this lifelong process of the nourishment of modern man.

This country must now take the lead. We must work to increase the bargaining power of the less developed countries so that the drain is not a disaster. And we must call forth our highest powers of statesmanship to contain our short-run domestic interests in favour of our longer-range interest in the welfare and progress of man.

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JAMES BALDWIN: THE CRUCIAL SITUATION

FRED L. STANDLEY

SINCE HIS ADVENT INTO THE LITERARY WORLD and the racial atmosphere of this country more than a decade ago, James Baldwin has been continuously a subject of controversy both as a writer and as a man.

As a writer, he was recently the centre of a dispute in Chicago when a member of the Board of Education sought to have Baldwin's novel, *Another Country*, removed from a reading list in a literature course of a local junior college. As a man, Baldwin was recently applauded and cheered for his oratory in a debate against his fellow American, William Buckley, editor of the *National Review*.

All of this is merely indicative of the explosive nature of the ideas and works of a man who has been described, on the one hand, as "an agitator, a paranoid," an "outcast living in the waiting room between Harlem and our America,"¹ and, on the other hand, as "the first American Negro to achieve international status as a masterful creative artist and a spokesman for his race."²

A Writer of Significance

Despite a relatively small literary output — three books of essays, three novels, two dramas, and a few short stories — Baldwin has become firmly entrenched as a writer of significance among the reading public and among his own peer group. As a writer Baldwin possesses a type of religious devotion towards his vocation; or as he explains: "I consider that I have many responsibilities but none greater than this: to last, as Hemingway says, and get my work done. I want to be an honest man and a good writer."³

¹ C. C. O'Brien, "White Gods and Black Americans," *New Statesman*, LX (May 1964), 681.

² R. A. Schroth, "James Baldwin's Search," *Catholic World*, CXCVIII (Feb. 1964), 288.

³ James Baldwin, "Autobiographical Notes," *Notes of a Native Son* (New York, 1964), p. 6.

Involved in this conception of being a "good writer" are certain attributes of which an author must be aware. First, it is the business of the writer "to examine attitudes, to go beneath the surface, to tap the source."⁴ Applied to man in the twentieth century, this means gaining an adequate perspective of man.

*He is not . . . merely a member of a Society or a Group or a deplorable conundrum to be explained by Science. He is — and how old fashioned the words sound — something more than that, something resolutely indefinable, unpredictable. In overlooking, denying, evading his complexity — which is nothing more than the disquieting complexity of ourselves — we are diminished and we perish; only within this web of ambiguity, paradox, this hunger, danger, darkness, can we find at once ourselves and the power that will free us from ourselves. It is this power of revelation which is the business of the novelist, this journey towards a more vast reality which must take precedence over all other claims.*⁵

Second, in this endeavour to "tap the source," an author writes out of one thing only — "one's own experience." "Everything depends on how relentlessly one forces from this experience the last drop; sweet or bitter, it can possibly give. This is the only real concern of the artist, to recreate out of the disorder of life that order which is art."⁶ Third, this bringing order out of the disorder of man's experience is a special vocation:

*The importance of a writer is continuous . . . his importance, I think, is that he is here to describe things which other people are too busy to describe. It's a function, let's face it, it's a special function. There's no democracy on this level. It's a very difficult thing to do, it's a very special thing to do and people who do it cannot by that token do many other things.*⁷

The Special Function of a Writer

Finally, this "special function" of the writer involves both

⁴ Baldwin, "Autobiographical Notes," *Notes of a Native Son* (New York, 1964), p. 3.

⁵ Baldwin, "Everybody's Protest Novel," *Notes*, p. 11.

⁶ Baldwin, "Autobiographical Notes," *Notes*, p. 5.

⁷ Baldwin, "The Male Prison," *Nobody Knows My Name* (New York, 1964), pp. 125-126.

personal and social responsibility. It is his personal responsibility to examine human life and eliminate delusion: "His subject is himself and the world and it requires every ounce of stamina he can summon to attempt to look on himself and the world as they are."⁸

The writer's social responsibility does not mean that he becomes a politician or assumes the duties of an economist; rather his work is pervaded by an ethical concern for and consideration of his own generation as well as of his descendants:

I know that this point of view is not terribly fashionable these days, but I think we do have a responsibility, not only to ourselves and to our own time, but to those who are coming after us. (I refuse to believe that no one is coming after us.) And I suppose that this responsibility can only be discharged by dealing as truthfully as we know how with our present fortunes, these present days. . . . For, though it clearly needs to be brought into focus, the writer has a real vision of ourselves as we are, and it cannot be too often repeated in this country now, that where there is no vision, the people perish.⁹

In summary, then, the writer performs a special function: he attempts to go beneath the surface of human experience and to bring order into being out of the fragmentary and chaotic conditions of disorder; and he exercises a personal and social responsibility for furnishing himself and his fellow men with a vision of themselves as they are.

The Sprawling Metropolis

Within his own vision of men as they are, Baldwin treats the impact on the individual of the conditions of urban life and society. His works deal not with the rural and the natural setting but with the gutter and the grime, the impersonality and the anonymity, the isolation and the confinement of the sprawling modern metropolis, with all of its conflict and complexity, its teeming thousands of population, its concrete and steel—and especially the impact upon those within the lower socioeconomic stratum. For example, Rufus Scott in *Another Country*:

He was facing Seventh Avenue, at Times Square. It

⁸ Baldwin, "The Discovery of What It Means To Be An American," *Nobody*, p. 12.

⁹ Baldwin, "The Black Boy Looks at the White Boy," *Nobody*, pp. 189-190.

was past midnight and he had been sitting in the movies, . . . since two o'clock in the afternoon. . . . He was so tired, he had fallen so low, that he scarcely had the energy to be angry; nothing of his belonged to him any more. . . . He was hungry, his mouth felt filthy . . . and he was broke. And he had nowhere to go.

The Avenue was quiet, too, most of its bright lights out. Here and there a woman passed, here and there a man; rarely, a couple. . . . A sign advertised the chewing gum which would help one to relax and keep smiling. A hotel's enormous neon name challenged the starless sky. So did the names of movie stars. The great buildings, unlit, blunt like the phallus or sharp like the spear guarded the city which never slept.

Beneath them Rufus walked, one of the fallen — for the weight of this city was murderous — one of those who had been crushed on the day, which was every day, these towers fell. Entirely alone, and dying of it, he was part of an unprecedented multitude.¹⁰

Baldwin shows, within this portrayal of urban life, an impressionistic understanding of what sociologist Charles Silberman has labelled "the long suppressed reaction against the imbalance of power"¹¹ in the social-economic-political structure of society. For example, in the drama, *Blues for Mister Charlie*, the entire action and dialogue are based on the premise of the imbalance of power. Everyone in the play reacts to or responds to Richard Henry, the young Negro who has returned home from urban life and says: "It's easy for you to talk, Grandmama, you don't know nothing about New York City, or what can happen to you up there."¹²

The Crucial Situation

As readers we are confronted in Baldwin's vision of urban life and experience with what the theologian Carl Michalson calls "the tenderest and most sensitive needs in the human spirit, the crucial situations in the lives of people."¹³

A crucial situation is a highly specialized kind of situation: an inescapable situation in which a man must take an attitude and

¹⁰ Baldwin, *Another Country* (New York, 1963), pp. 9-10.

¹¹ Charles E. Silberman, *Crisis in Black and White* (New York, 1964), p. 193.

¹² Baldwin, *Blues for Mister Charlie* (New York, 1964), p. 32.

¹³ Carl Michalson, *Faith for Personal Crises* (New York, 1958), pp. 3-4.

make a decision because existence itself is confronted with a threat. It is a situation requiring decisiveness and involving the affirmation or denial of the significance of life.

Such crucial situations in the experience of man are: (1) birth and death — which involves the struggle for life and man's attitude about its origin, its goal, its present meaning; (2) marriage — which means the struggle for love; (3) vocation — which includes man's struggle for power; (4) doubt — which signifies the threat of meaninglessness to man; (5) guilt — which emphasizes man's sense of unworthiness without knowledge of why it is so; (6) anxiety — which is the sense of discomfort at being subject to fate, destiny, death.¹⁴

These crucial situations are continually manifested in the works of Baldwin, and he frequently refers in his essays to such crises as "the crucial moment." All of his works treat in various forms and focus in numerous ways upon "the crucial situations" of the characters.

In the novel *Another Country* the crises of doubt and anxiety lead Eric Jones, the actor, to seek personal identity in homosexuality. For Rufus Scott, the jazz musician, it is the crisis of guilt that results in suicide. For Richard and Cass Silenski the crises of vocation and marriage lead to alienation and estrangement and finally back to partial reconciliation. For Ida Scott, the Negro woman, and Vivaldo Moore, the Italian Caucasian, the crises of guilt and anxiety precipitated by the death of Rufus lead them through the complex facets of interpersonal relations to a culminating declaration of love.

The whole novel is the reflection of a "crucial year" in the lives of a small group of urban New Yorkers. And a comparable list of crucial situations could be compiled for each of Baldwin's works.

The Search for Identity

One of the principal forms in which the crucial situation is expressed consists of the search for identity. This search or quest for identity is indispensable in Baldwin's opinion, and the failure to experience such is indicative of a fatal weakness in human life. Or as Baldwin explains about his sojourn in Europe:

I didn't meet anyone in that world who didn't suffer from

¹⁴ Carl Michalson, *Faith for Personal Crises* (New York, 1958), pp. 1-14.

the very same affliction that all the people I had fled from suffered from and that was that they didn't know who they were. They wanted to be something that they were not. And very shortly I didn't know who I was, either.

I could not be certain whether I was really rich or really poor, really black or really white, really male or really female, really talented or a fraud, really strong or merely stubborn. In short I had become an American. I had stepped into, I had walked right into, as I inevitably had to do, the bottomless confusion which is both public and private, of the American confusion.¹⁵

In the novels and dramas, this quest for identity always involves the discovery and elimination of illusion and delusion about oneself, an aspect illustrated in *Blues for Mister Charlie*. Parnell James, the cynical white liberal newspaperman, who has expended his life trying to conciliate between the Negro community led by his friend, Rev. Henry, and the white community led by his friend, Lyle Britten, comes to a painful awareness of himself when confronted in a conversation with the Negro student, Juanita, who says to him:

"I used to watch you roaring through this town like a St. George thirsty for dragons. And I wanted to let you know you haven't got to do all that; dragons aren't hard to find, they're everywhere. And nobody wants you to be St. George. We just want you to be Parnell. But, of course, that's much harder."¹⁶

Up to that point in the drama, Parnell has been unable to make what Stanley Hopper calls "the journey where he must encounter all the dragons of the inner life: alienation, abandonment, isolation, and solitariness."¹⁷

The quest for identity always involves a man with other men—there can be no self-perception apart from or outside the context of interpersonal relationships. Only within the dynamic interplay of personalities can men become profoundly aware of the significance of being a man.

¹⁵ Baldwin, "Notes for a Hypothetical Novel," *Nobody*, pp. 122-123.

¹⁶ *Blues*, p. 107.

¹⁷ Stanley Romaine Hopper, "The Problem of Moral Isolation in Contemporary Literature," in *Spiritual Problems in Contemporary Literature* (New York, 1957), p. 153.

Baldwin sees the lack of interpersonal relations as explicitly related to the breakdown of communication between persons—specially “the breakdown of communication between the sexes”:

The entire social and moral structure that we have built is proving to be absolutely inadequate to the demands now being placed on it. The old people cannot imagine a new one or create it. The young people have no confidence in the old; lacking which, they cannot find any standards in themselves by which to live.

The most serious result of such a chaos, though it may not seem to be, is the death of love. I do not mean merely the bankruptcy of the concept of romantic love—it is entirely possible that this concept has had its day—but (I mean) the breakdown of communication between the sexes.¹⁸

Such a breakdown is frequently presented by Baldwin in vivid phrases with passionate intensity; for example, the crucial situation of love between David and Hella in *Giovanni's Room*. In one scene they are in southern France after the act of murder had been committed by David's friend, Giovanni.

“It's not your fault,” she said. “Don't you understand that? You couldn't keep him from falling in love with you. You couldn't have kept him from—from killing that awful man.”

“You don't know anything about it,” I muttered. “You don't know anything about it.”

“I know how you feel—”

“You don't know how I feel.”

“David. Don't shut me out. Please don't shut me out. Let me help you.”

“Hella. Baby. I know you want to help me. But just let me be for awhile. I'll be all right.”

“You've been saying that now,” she said, wearily, “for a long time.” She looked at me steadily for awhile and then she said, “David. Don't you think we ought to go home?”

“Go home? What for?”

“What are we staying here for? How long do you want to sit in this house, eating your heart out? And what do you think it's doing to me?” She rose and came to me. “Please.

¹⁸ Baldwin, “The Northern Protestant,” *Nobody*, p. 140.

I want to go home. I want to get married. I want to start having kids. I want us to live someplace, I want you. Please David. What are we marking time over here for?"

I moved away from her, quickly. At my back she stood perfectly still.

"What's the matter, David? What do you want?"

"I don't know. I don't know."

"What is it you're not telling me? Why don't you tell me the truth? Tell me the truth."

I turned and faced her. "Hella — bear with me, bear with me — a little while."

*"I want to," she cried, "but where are you? You've gone away somewhere and I can't find you. If you'd only let me reach you —!"*¹⁹

Part of David's problem is his inability to reveal his interior being either to himself or to another person; and as Baldwin points out in one of his essays: "In order to have a conversation with someone you have to reveal yourself."²⁰

The breakdown of communication between the sexes produces also the enormous misconceptions of people about each other. Lyle and Jo Britten, man and wife in *Blues for Mister Charlie*, have little understanding of themselves and none of each other.

Jo: It's not different — how can you say that? White men ain't got no more business fooling around with black women than —

Lyle: Girl, will you stop getting yourself into an uproar? Men is different from women — they ain't as delicate. Men can do a lot of things a woman can't do, you know that.

Parnell: You've heard the expression, sowing wild oats? Well, all the men we know sowed a lot of wild oats before they finally settled down and got married.

Lyle: That's right. Men have to do it. They ain't like women. Parnell is still sowing his wild oats — I sowed mine.

Jo: And a woman that wants to be a decent woman just has to — wait — until the men got tired of going to bed with — harlots! — and decide to settle down?

Parnell: Well, it sounds very unjust, I know, but that's

¹⁹ Baldwin, *Giovanni's Room* (New York, 1964), pp. 212-213.

²⁰ "Notes for a Hypothetical Novel," *Nobody*, p. 124.

the way it's always been. I suppose the decent women were waiting — though nobody seems to know exactly how they spent the time.

Jo: Parnell!

Parnell: Well, there are some who waited too long.

Jo: Men ought to be ashamed. How can you blame a woman if she — goes wrong? If a decent woman can't find a decent man — why — it must happen all the time — they get tired of waiting.

Lyle: Not if they been raised right, no sir, that's what my Daddy said, and I've never known it to fail. And look at you — you didn't get tired of waiting.²¹

This same lack of communication and revelation of personality causes Parnell James to speak later in the play of "this dull calisthenic called love — with no love in it."²²

The Nature of Love

The ability to relate, to reveal, to communicate constitutes in Baldwin's works the basic premise of satisfying heterosexuality; and the lack of such abilities impels men to attempt to communicate with others in the exercise of homosexuality. Both *Giovanni's Room* and *Another Country* treat the matter of homosexual relations with intensity and force, but not repulsively.

Baldwin does not pass moral judgment upon the act but presents its subtle causation and implication, and confronts the reader with the necessity for making a judgment about the characters and their situation. The tragic quality of the homosexual in the novels lies in the fact that he is an ambivalent creature unable to find personal significance or satisfaction in his relationship with either sex.

This portrayal is evidence of Baldwin's own understanding as expressed in an essay on André Gide:

The really horrible thing about the phenomenon of present-day homosexuality . . . is that today's unlucky deviate can only save himself by the tremendous exertion of all his forces from falling into an underworld in which he never meets either man or woman, where it is impossible to have either a lover or friend, where the possibility of genuine

²¹ *Blues*, pp. 83-84.

²² *Ibid.*, p. 139.

Baldwin the "ultimate, infinite, unconditional" is found in the interpersonal relationships of men expressed through love.

Many persons read Baldwin with what Silberman calls "the shock of discovery" and see only anger, hatred, violence, promiscuity, lust, obscenity and vulgarity in his works. To be sure, these elements are there. While such a response is a legitimate reaction for any reader, the inclination to see only those factors appears slightly absurd. For in his works the human personality in all of its baffling mystery, its enigmatic perplexity, its web of entangled desire, ambition, lust, frustration, and love is presented with intensity and poignancy.

Baldwin's dynamic literary presentation of man is somewhat analogous to the dynamic scientific outlook towards man. Both operate on the basis of the humility of man towards himself and the universe; both are exploratory and tentative; both express their conclusions in terms of probabilities, not in absolute certainties. Baldwin is keenly aware that the old frame of reference, the old authority of a safe, secure society and universe with God in His place and man in his, is now passé.

Man must awaken anew to a sense of his identity and destiny, since, as Tillich so aptly phrases the problem, "Man is the being who asks the question of being." Baldwin's works are attempts to grapple with the question of man's being in the midst of the crucial situations of his existence.

In conclusion we can say of him what Matthew Arnold's sister said about one of Arnold's volumes of poetry:

He seemed to have come face to face with life and asked it, in real earnest, what it means. I felt there was so much more of this practical questioning in the book than I was prepared for; in fact that it showed a knowledge of life and conflict which was strangely like experience if it was not the thing itself.³⁰

³⁰ Lionel Trilling, *Matthew Arnold* (New York, 1949), pp. 17-18.

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SHADOWS IN THE RACE

HARRY STRICKHAUSEN

I. THE FIRST IMAGE

In the image of dance the lute is held
In the space before his eyes, delicate smoke
Ascending through its strings. Within that space
Mirror and yellow horn and singer turn;
And the soldier sinks in a field of the gilt night.

The candle at the bar is overhung
With coloured waxes. Lute and singer
Fall in receding mirrors. They are lost
As the sudden form and word and cry
Are lost with the shifting darkness and the voices.

A thousand shadows on the mirror run
In the fierce array of earth against the sky.
The soldier's image starts in the red glass,
Reviles the secret knowledge of the eyes
Suspended there in the turning dream of place.

He has walked in the street of Rome and forgotten
All but the song from the barges, and the steps
Which lead again to a darkened place.
The lantern and chain swing from the rafters.
Ends of the shadow sway to the coming hour.

Flares in the sky burn in the mirror now.
The gray beams and the city, race and rout,

The silver shadow in the false dawn there,
Appear as one, swirl in the dust.
Those were her eyes in the twentieth mirror then.

Yet many loves are one, the single image.
Where in the race from the city is the one?
By what door, in the blowing autumn leaves,
Shall he see again that light? The wheel of time
Turns; and by chance it shall all occur again.

The soldier in the August night
May dimly grieve the moments of his life.
And though this lengthened shadow is his own
He is formed to follow where the shadow falls
In the cities and the countries of his birth.

II. RETURN

In the dusk of another city the soldier walks.
By the waters of Marmara now he stands
With the two or three. And boats and singers pass
Close as the vaporous breath of the god of the cove.
And silent lightning flecks the distant wave.

He moves along with the knowledge that all
Follow him, all alone. In a rising dust
His is the circular path which again and again
He remembers and forgets. And the place, the point
On the wheel, exists. And he comes at last to a square.

In the centre the column stands. The deeds are written.
The lights of torches cross the riders. Thus
He returns to the central point, the winding street
Around the hill, the unexpected one. In the time
Given this night, he finds a place of music.

III. THE MARCH

The night is a warm scar. The night is done.
In the cities and the countries of his birth

SHADOWS IN THE RACE

He remembers the heat and shadows on the barges,
The length of roads and fields. And thus immobile
In his life, he hears a distant oar.

Solemn and dark is the night and the river city.
Shall he dream again the space before the sunrise,
The long space past the early stars?
Shall he recall the song in the torchlight square
Before the column of Arcadius?

Beyond him is the sun and the shadow of life,
And a face at his right and a face at his left.
There is the endless way which comes at last
To an end. He will sing and stir and remember not
The smile of the crooked goddess at his right.

His hand to the light, the clefts in his palm
Are lines of the ever dead and dreaming earth,
Divergent armies of the mind. Within
The space, Greek and Phoenician tramp the street.
And marble buildings bless his sleep and trance.

His palm is a signal to the outer night,
The simulacrum of a movement where
Tomorrow waits beyond tomorrow, there
The smell of battles and the secret art,
The columns of the many singing dead.

And what tonight is the space before tomorrow?
The interim a shadow on the pavement,
What is the column dark on the grassy plain?
And what shall be the space of the eye and hand
Before the battle of the earth and sky?

HARRY STRICKHAUSEN, *who teaches at Wayne State University,
Detroit, Michigan, is a new American poet.*

THE COMING AMERICAN ECONOMY

NORMAN A. BAILEY

FOR THE PAST CENTURY and more, two parallel lines of economic thought and action have beset the world of public policy — the collectivist or socialist trend and the capitalist trend. There is no completely socialist country as envisioned by the original theorists, and complete government ownership of the means of production has produced tyranny, not the genteel anarchy foreseen by Marx. There is no completely capitalist country either, of course, and perhaps it is time to put an end to sterile polemics and try new approaches to that most elusive of all combinations—prosperity *with* freedom.

Karl Marx and Friedrich Engels analysed the first stage of capitalism with minute care and considerable success. They conceded that it was the essentially competitive aspect of the capitalist system that compelled entrepreneurs constantly to improve their methods and that made possible the unprecedented increases in production following the industrial revolution.

But because they failed to see that capitalism was developing, not dying, they went on to predict: 1. that low wage rates would prevent the working class from purchasing the goods the factories were producing; 2. that the very progress of technological innovation would result in ever-greater unemployment, further reducing public purchasing power; 3. that the amassing of unpurchased inventories would lead to economic collapse, so that production would be curtailed to clear inventories and prepare the way for another boom; and 4. that the ills of this repetitive cycle would grow more

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severe until the proletariat rose in revolt and destroyed bourgeois society.

The Divorce of Ownership and Management

The analysis of capitalism was carried a stage beyond Marx and Engels by Berle and Means in their classic work, *The Modern Corporation and Private Property*, in 1932. Berle and Means, of course, had the advantage of knowing that capitalism had developed quite differently from the ways predicted by Marx and Engels. In the second stage of capitalism enterprises owned by single persons or families were transformed into giant corporations owned by thousands—in some cases tens and hundreds of thousands—of individual shareholders.

Although the well-known divorce between ownership and management has perhaps been overemphasized, the Berle and Means analysis of oligopolistic capitalism was a brilliant one. Their remedy was to encourage the rise of giant monopolistic labour and giant redistributive government as countervailing forces to the power of the great corporations and thus preserve our pluralistic society.

Again, as with Marx and Engels, they recommended coercion to redistribute the income from the total capital holdings of society, while considering inevitable the greater and greater centralization of the capital itself.

And yet unwittingly, perhaps, they foreshadowed a different possible development of capitalism. Speaking of the American Telephone and Telegraph Company of their day, they pointed out that 100 companies of the same size would control all of American wealth, would employ all of the gainfully employed, *and would be owned by practically every family in the country*. (In 1932 the American Telephone and Telegraph Company had 570,000 shareholders. Today it has over two million.)

Redistribution of Capital

In 1958, Kelso and Adler, in *The Capitalist Manifesto*, took as courageous a look at the remedies of Berle and Means and their consequences as Berle and Means had themselves taken when they looked at the corporate giants. What Kelso and Adler found was that monopoly labour and the redistributive state had indeed been set off against the corporate colossus, but that in the process the

individual, supposedly the ultimate beneficiary of the democratic society, had been largely forgotten.

What they proposed, for the first time, was the redistribution not of the income of capital but of capital itself, and contended that this would indeed free the individual, free him not only from his dependence on the giant state, corporation, or labour union, but also from the absolute necessity of remunerated work. They pointed out that much of the present work of society was simply make-work, and that even make-work would be insufficient to curb unemployment and inflation as long as full employment remained the goal. They proposed that employment be allowed to shrink, as persons with sufficient capital estates left the labour market.

Fully remunerated employment, after all, is a meaningful goal only in a society where productive capital is not widely distributed and the major source of income is in the form of wages and salaries. Every individual, they argued, had the right to the fruits of his labour (property in labour), but many were without capital. Labour productivity was declining and had been for a long time, whereas capital productivity was rapidly increasing.

Consequently, full employment of capital, not full employment of labour, was appropriate to a very advanced society. Just as the low return to labour had once been an economic injustice, the low return on capital was an injustice now.

Kelso and Adler were blithely ignored at the time they wrote, but it may be time to take another look at their theory, without necessarily becoming mesmerized by it. One reason perhaps for its neglect is that the authors presented their idea as a sort of general solution to just about everything, whereas if there is one thing certain about the future of the economic system, it is that it will bring with it its own new problems, whatever the old problems it may solve.

For another thing, Kelso and Adler felt it necessary for the state to take all kinds of steps to *coerce* wider distribution of capital, whereas the distribution of income in the welfare stage was already supposed to be taking care of the problem of distribution.

In the first stage, then, of capitalist development (a continuous process, of course, not a clearly delineated period of time) capital was accumulated; in the second stage the income from that capital was widely distributed; in the incipient third stage, as a result of the distribution of income, capital has begun to be widely distributed. This is the thesis of this essay, and the argument is that the process should be encouraged, and not hindered.

In 1800, total production was low and a greater portion of its value was due to the input of labour than to the input of capital. However, the share of produced wealth then returned to capital was greater than the share capital contributed to production, and the share returned to labour less than the share it contributed. The disproportionately large share returned to capital made possible the extremely rapid adoption of new machinery and techniques characteristic of capitalism's initial stage.

As the century progressed, however, labour's share of produced wealth increased at first because of the increase in productivity of capital instruments, and later because of the rise of monopoly labour and the development of the welfare state.

Simultaneously, as Engels and Marx foresaw, increasing mechanization caused a decrease in the contribution of labour to over-all production. Public purchasing power did not, however, decline in consequence, for capitalism placed ever-increasing amounts of wealth in the hands of the people as a whole.

It was in the second stage of capitalism that monopoly labour and the welfare state became the major redistributors of income, but the practice of paying to labour a greater portion of total production than it was entitled to (by a strict economic accounting of its contribution to production increases) began in the first stage, when capitalists sought to increase their markets.

Even in the heyday of "robber baron" capitalism, between 1870 and 1890, the share of capital in national income declined 6 per cent while the share going to labour rose by 5 per cent. It was during this same period that labour's total share of national income passed the 50 per cent point. While the contribution of labour to productivity continued to decline through increasing investment in mechanization and the beginnings of automation, the size of the capitalist class began to grow and of the labouring class to decline in relation to the total population.

This trend has continued, so that there are about 20 million shareholders and only about 11 million industrial workers in the United States today. This is approximately the reverse of the situation that prevailed immediately following the Second World War.

In some cities as much as 26.6 per cent of the *total* population (not of households) is now estimated to hold some stock. Further, I would argue, the growth of the capitalist class and the reduction of the labouring class is an inexorable part of the development of our economic system.

It has proceeded apace despite the now counterproductive agencies of the welfare state and monopoly labour, and despite the fact that since the middle of the nineteenth century the rewards of labour have constantly increased and the rewards of capital constantly decreased. So much has this been the case that dividend income is little more than twice today what it was in 1929, while total personal income is five times as great.

Dividends accounted for 6.7 per cent of total personal income in 1929, but for only 3.4 per cent in 1961. Between 1948 and 1957 labour took 121.8 per cent of the gains resulting from increased productivity; capital's reward correspondingly shrank by 21.8 per cent. In 1950, employee compensation was 63.7 per cent of national income; by 1962, it was 70.2 per cent.

Consequently, today neither capital's nor labour's economic return bears any relation whatsoever to its contribution to production. That a family cannot nowadays live comfortably from the earnings of a \$100,000 capital estate is not only absurd; it is an indication of the current internal crisis in the American economy.

What might have logically been expected to happen is that an increasingly greater portion of produced wealth would flow to owners of capital and an increasingly smaller portion to labour, according to their numbers and contribution to production. Such a decrease in return to labour would mean, of course, not a decrease to the individual labourer, but a decrease in the percentage of total national income represented by wages and salaries; individual wage and salary scales would remain high and undoubtedly increase on the average.

The Third Phase of Capitalism

If we now view some of our current economic puzzles against the background of the development of capitalism just sketched, we may find it possible to explain them as phenomena peculiar to the traditional period we are now experiencing. The economic system itself, having generated the momentum to make the second stage obsolete, is ready to move on to the third.

However, by no means do I intend to imply economic determinism here. The capitalist process can be aborted at any point, as we have seen in Russia, China, Eastern Europe, and elsewhere; and it should be obvious to all by now that political power can be used to divert economic forces into unnatural channels (for how long, however, is questionable, judging from the recent economic

and academic ferment behind the Iron Curtain).

The position of monopoly labour, though seemingly unassailable now, is perhaps already seriously eroding, as membership and enthusiasm decline and as the state begins a tortuous process of lessening its support.

The state itself, however, although only one power bloc among many in a pluralistic society, has at its disposal methods of defence and attack that are unavailable to other groups, and will not hesitate to use them if its position is threatened.

Nevertheless, the forces opposing societal change have always been strong, and, at least in the United States, have always eventually been overcome. There is no reason why the growing capitalist class cannot organize and use its voting strength as effectively as labour once did. Although the unproductive and counterproductive portions of state spending would decline and eventually disappear, the political functions of the state, including the enormous item of defence, would continue, and greater sums could be devoted to transportation, health, and education.

The continued necessity of massive defence spending will slow the changes suggested here by delaying tax reductions and thus reducing the incentive of corporations to pay out the ever-greater portions of their profit to shareholders that otherwise would more rapidly increase average return to capital.

There is no harking back here to Manchesterian *laissez-faire*. It is important to stress that the first two stages of capitalism were the necessary antecedents of a hypothetical third. The first stage provided the essential accumulation of capital; the second stage distributed its fruits. During the second stage, the welfare state and monopoly labour were the principal means of the distribution of income, which in turn promoted the widespread ownership of capital. They also acted, in the political field, as countervailing powers to the great masses of corporate wealth.

But today they seem to have outlived these ends. In the most advanced capitalist countries, certainly in the United States and probably in Canada, the welfare state and monopoly labour are obsolescent. Once vital to capitalist development, they are now counterproductive forces, working against the natural tendency of the economic system to enter its next stage of development.

Many interests — within government, labour, and, indeed, capital itself (corporate gain at the expense of individual gain) — are strongly resisting the continuing natural development of the capitalistic system. If left alone, however, the emergence of the

third stage of capitalism would in fact appear to be just the treatment needed to heal those economic wounds that grieve us most, while undoubtedly creating new ones of its own.

The regulation of the stock market that has evolved since 1929 has been successful in reducing the incidence of outright fraud, but it has been spectacularly unsuccessful in preventing wild fluctuations of the market caused by speculation. Yet consider: the present average return on capital is so low that only those with large capital estates (perhaps exceeding \$500,000) are generally interested in buying stock for investment; the majority of those active in the market are more interested in buying for speculation, since only capital gains yield substantial amounts of money.

If, however, the future development of capitalism were to free corporations from excessive taxation and labour costs, and it would become possible for business to realize all its capital needs through the issue of more common stock instead of through retained earnings and borrowed money, then the general yield of capital could be substantially raised from the present 4 per cent more or less, and the majority of those with capital would invest in stocks for income rather than for speculative gains, and greater market stability would result.

The Keynesian paradox would simply vanish: saving and investment would again become undiluted virtues.

Unemployment would be reduced, and automation would clearly become the boon it should be rather than the threat it now seems. Many of those with sufficient capital estates would be replaced in the remunerated labour market from below by the unemployed. In other words, there should be a continuous outflow from the labour market; it should progressively shrink.

Sustained full employment (directly *productive* employment) is unattainable through the laws of the market economy under capitalism at this stage in its development. Full employment can be achieved only by artificial stimulation and coercion and therefore is harmful to future growth.

Price Stability and Domestic Investment

Price stability would be another effect of the economic changes. The economic return, no longer absorbed by monopoly labour and the state, could either increase the return to capital or reduce prices. Most likely it would result in a combination of both.

The continuing evolution of the capitalist system would affect

not only domestic problems. The deterioration of the balance of payments, for instance, would be reversed when the gradual increase in the domestic return to capital began to attract additional capital from abroad. Lower domestic prices would also tend to expand exports.

Politically, too, the future of capitalism is of extreme importance, and not only because of the cold war. One of the mainstays of social stability has historically been the independent farmer; but in advanced capitalist countries his position is weakened and his number has dwindled dramatically. He should be replaced, not by the propertyless worker, bureaucrat, technician, or manager, but by the independent capitalist, who will have vested, rather than professional, class interests.

I am then contending that the breakup of monopoly labour and the reduction of the economic functions of the state should be looked upon not as reactionary measures, but rather as the natural developments of the future, and therefore progressive, and that pluralistic society and consensual government will be *aided* by the reduction in the power of these two blocs, coupled with the continued reduction in power of the aggregate corporate bloc, now feeding on a wealth and control internally maintained through autonomous managerial manipulation using retained earnings and borrowed money.

The New Society

Breaking the wage-job link in our minds may free our thought processes sufficiently to speculate a bit concerning that about which none of us knows anything — the future. The new society that we might expect to take shape would consist primarily of shareholders, who, to a greater or less degree, would be able to live from the earnings of their capital estates, rather as the independent but not necessarily wealthy farmer has been doing all along.

There would also be a large and overlapping class of managers, technicians, scientists, and engineers, and, finally, a certain number of unskilled, semi-skilled, and skilled manual labourers, although the number needed and employed would be drastically reduced.

A recent announcement by the Pullman Corporation that it is testing an "all-purpose robot" may indicate to the farsighted the eventual complete replacement of the manual labourer in industry. Even today, trade union membership, despite favourable legislation and government support, is declining under the pressure of

economic reality.

In the simplest possible terms, the third stage of capitalism would have as its distinguishing characteristic the continuing spread of capital ownership throughout the population, together with a gradual disappearance of the economic functions of the welfare state and the destruction of monopoly labour, no longer needed for the protection of the working class.

In any case, the labouring class would continue to shrink and the capitalist class swell in numbers. This development would accelerate as the share of national wealth going to shareholders increases and the portion going to wage earners or confiscated by the state decreases. By the year 2000 or so, we could expect to see the establishment of a true "people's capitalism."

Utopia? I think not. If it is claimed that by lowering state spending economic growth would be stunted, it can be answered that the state will continue to spend on many things, and in any case what it does not tax from the people will be spent directly by the people without having its economic effect diluted by the transfer cost of coercive redistribution by the state. It would be a strange utopia, in any case, that might well still be faced with the threat of nuclear obliteration.

Finally, the educators can contemplate the task of teaching a nation to use what will in many cases be total leisure productively, not from the material, but from the spiritual standpoint (and this in a society that has largely lost its faith). If utopia means a society without problems, this will not be utopia.

Still, from the purely economic standpoint, we may have come full cycle again to Marx and Engels. Capitalism has developed so that the instruments of production can now be truly in the hands of "society."

The state, in many of its economic functions, can "wither away," although its political functions would subsist. Engels wrote, "State ownership . . . is not the solution of the conflict: (this) can only come about by society openly and directly taking possession of the productive forces." True enough. What the followers of Engels and Marx forgot, however, Ortega reminds us of: "Only parts do exist in fact; the whole is an abstraction of the parts and it depends on them."

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WHAT IS THE “GREAT SOCIETY” ?

EDWIN O. REISCHAUER

THE CONCEPT OF THE GREAT SOCIETY has very deep roots in American history, and at the same time has deep significance for the whole world today. The North American continent was populated primarily by refugees from the political oppression, religious persecution, inherited social evils, and age-old poverty of the countries they left behind. When enough of them had gathered on the new shores to found their own new country, the United States, they did so with the specific intention of building a better society than had ever existed before.

The revolutionary idea of consciously creating a better society has never ceased to play a major role in American life. For a long time it found its primary expression in pioneering and the development of the frontier, where the oppressed and underprivileged could make a fresh start.

As the twentieth century approached, the old frontier of open spaces had disappeared. If there were to be continued opportuni-

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ties for a better life, they could come only through improving what already existed. This new phase has been characterized by a succession of presidential programmes designed to build a better America.

President Théodore Roosevelt at the beginning of the twentieth century faced a situation in which a relatively small group of men dominated a large part of the American economy. By determined action against monopoly and economic rapacity, he preserved the American system of open opportunity for all.

President Franklin Roosevelt in the 1930s faced a threatened collapse of the whole economic system following the worldwide "Great Depression." His vigorous and extensive programme of economic, social, and political countermeasures and reforms was called the "New Deal," meaning a fresh start free from old evils. Following World War II, President Truman returned to the task of correcting the ills of American society and improving it. He called his programme the "Fair Deal."

Then in the early 1960s, President Kennedy renewed with youthful vigour the effort to further improve American society. Remembering how the frontier had so long provided the means of giving new opportunity to the oppressed and underprivileged, he called his programme the "New Frontier."

President Johnson in turn has taken up with great enthusiasm and energy the effort to build a better America, labelling his programme the "Great Society."

Equality for the Negro

To my mind the Great Society has two major aspects. The first is the remedying of inherited social evils and the elimination of areas of economic and social lag within American society. Specifically, the United States faces two major problems in this category: the attainment of full equality for the Negro American and the achievement of a minimum level of prosperity for those whose standard of living, while relatively high by world standards, has for one reason or another fallen behind that of their prosperous compatriots.

The programmes of the Great Society have had a major impact on the first problem. The Congress in 1965 placed the question of voting qualifications under federal supervision, and this has already resulted in major increases in the percentage of Negroes registered to vote in areas where this right has been infringed. A

second law struck out at discrimination in employment and in access to public facilities.

President Johnson, himself a native of the American South, has given the nation strong moral leadership on the Negro problem, and the vast majority of Americans are now conscious of their personal responsibility to contribute to its complete solution. Old habits of thought and action are not easily changed. Nevertheless, the Great Society has already made giant strides towards the elimination of a situation that has long been America's shame.

Pockets of Poverty

The Great Society has numerous programmes directed at the second problem of eliminating the pockets of poverty in a prosperous United States. Special infusions of money and effort are being poured into particular "depressed areas" which have been by-passed by the general American prosperity.

Some aspects of the problem are nationwide rather than regional in scope. For example, a special educational programme has been set up to help underprivileged or handicapped children keep pace in the school system, construction subsidies have been made available for low-rent housing in the cities, and intensive job training has been instituted for unskilled youths and those who have lost their job through automation.

The most important new programme has been the establishment of a comprehensive "Medicare" system of government-supported health insurance for the elderly. Medical care in the United States is perhaps the finest in the world but, partly because of this reason, is also relatively expensive. Older people, retired from their jobs and living on government or company pensions which would be quite adequate under most circumstances, were often unable to afford the full medical care they needed.

Free medical care, which is extensively available in the United States as a charity, was not always adequate and was, in any case, not a self-respecting solution for many people. The Medicare law was passed as part of the Great Society programme, and the aged need no longer worry about the expense of adequate medical care.

A Complex of Problems

The second major aspect of the Great Society is its attempt to deal with the problems of modernization. In modern societies,

people swarm together in great urban industrial complexes. The result is crowding, inadequate housing, traffic congestion, pressure on recreation facilities, contaminated air and water, the destruction of natural beauty, and the intensification of such social problems as mental health and crime.

The Great Society has specific programmes that attempt to deal in one form or another with all of these areas of concern in an effort to restore the city as a suitable environment for human beings. Studies of improved transportation systems, efforts to make the highways faster and safer, a massive programme of water conservation and reclamation, the beautification of urban areas, the provision of healthy public recreation facilities, and many similar programmes are already under way.

In order to supervise this aspect of the Great Society, a new cabinet-level Department of Housing and Urban Development was created in 1965—incidentally, headed by a Negro, Robert C. Weaver, who is the first of his race to have become a member of the Cabinet.

Better Education

If one were to single out the key effort that runs through all aspects of the Great Society, it would be the strong emphasis on the improvement of education at every level. Education is vital to enable the children of the poor, particularly the disadvantaged Negro poor, to find jobs in an economy where only the skilled worker has a future. Special pre-school training for children in slum areas and special assistance to primary schools in depressed areas are therefore major programmes under the Great Society.

But the educational aims of the Great Society do not stop there. Special grants are being made to improve higher education so that it can produce the specialists needed to deal with the complex technology of the future and solve the increasingly difficult problems of modernization. Also, a major effort is being made to develop the language specialists and scholars of foreign cultures needed for successful international understanding and cooperation.

All modern democratic governments have had a strong concern for the rights and welfare of their citizens, and it would be remarkable indeed if the United States Government were not active in attacking specific social problems and fostering the general well-being of the American people.

But there is something special about President Johnson's pro-

THE GREAT SOCIETY

gramme for a Great Society which makes it different in emphasis from many reform movements, especially those of the past.

The United States is quite clearly an "affluent society"—the most affluent the world has ever seen. The great majority of people are prosperous and well satisfied. There are only "pockets" of poverty and minority groups who do not participate fully in American opportunity. Modernization has raised bothersome problems, but these do not threaten any immediate crisis.

There are, in other words, no compelling reasons for vigorous reform, as there were in the time of the "New Deal" or still are in so many less prosperous nations today.

Facing the Future

Americans could sit back happily and drift, but instead, under President Johnson's determined leadership, they refuse to be static or self-satisfied. They wish to remove old ills, even if these affect only small minority groups. They want to meet the problems of the new age before they become too difficult to overcome.

At a time when pessimistic voices are beginning to be heard doubting man's ability to resist enslavement by the machine, the Great Society is an attempt to use vision to foresee the problems of the future, come to grips with them before they reach the crisis stage, and thus preserve and strengthen the human element of civilization. It is a massive effort to raise the quality of American culture and make an already affluent country, not necessarily richer in a material sense, but richer in spirit and in opportunity for the individual.

Another way in which the Great Society differs from earlier reform movements is that it aims at a levelling-up of the whole society and not a levelling-down of some in order to permit others to advance. This has been made possible by a fundamental change in the human condition. Until very recently, the economics of scarcity have dominated the world. Wealth of resources were limited, and their total amount could be increased only slowly by the primitive technologies available to pre-industrial man.

Any significant betterment of the impoverished masses seemed possible only by taking from the "haves" to give to the "have nots." Marxism with its strong emphasis on class struggle is typical of this pre-modern approach to social reform, and even the non-Marxist New Deal in the United States had overtones of this thinking.

Today, however, in modernized nations, the "haves" are

beginning to outnumber the "have nots," and, because of rapid technological advance, it is possible to raise the "have nots" to their level and then further raise all levels without taking away anything from anybody. Reforms need no longer be based on a "struggle" psychology but can instead be based on the rationalistic use of the potentialities of modern technology.

We are beginning to understand enough about the way a modern economy works to be able to select certain objectives and manipulate the economy to achieve them. Thus, under the Great Society all citizens benefit, not merely some favoured group. And because the constant creation of new wealth in an expanding economy automatically increases government revenues, the large expenditures required by the Great Society programmes have not required heavy new taxes. In fact, taxes have been reduced.

The Human Spirit

From this description of the background and nature of the Great Society, you may be able to see what it means to Americans. It means the pursuit of the great American dream of building something better than existed before. Certain ages in the past have been called "great" by those who looked back on them.

We, too, would have so to raise the quality of American life that the United States of our day will also be looked back upon as a "great" society. We hope to raise it, not just in a material sense, but more fundamentally in a spiritual sense—in the stability and justice of our political order, the flourishing of our arts and sciences, and the flowering of the human spirit.

I hope that the reader has not concluded from this analysis of the Great Society that the United States, by concentrating its energies on the relatively few problems of its own already prosperous society, is turning its back on the many millions of people who are still mired in ignorance, poverty, and misery around the world. The Great Society is most certainly not a sign of neo-isolation or an expression of American unconcern for the serious problems confronting mankind on a global scale.

A Better World

Actually the problems of lagging minority groups and of modernization and urbanization that we are struggling with in the United States are shared to some degree by all modernized nations,

and their solution calls for an international exchange of ideas and often for cooperative programmes across national frontiers.

But wholly aside from this natural community of interest between advanced nations, the United States remains fully committed to the great task of helping to bring stability and prosperity to the developing nations. The programme of all American presidents since the end of World War II have had a major international emphasis.

The Great Society is, in short, an expression of the American determination to try to build a better country and a better world. American problems, as those of an advanced nation, may seem less basic and less pressing than those of the developing nations, but in seeking to solve them Americans do not in any way diminish their capability to contribute to those lands. In fact, by keeping alive their own zeal for progress and by improving their own society, they make themselves just that much better able to contribute to the development of less fortunate countries.

Both the developing and the more advanced nations are engaged in the same fundamental process of building a greater society. This is a task that constantly faces each new generation; for no society ever reaches a final resting place unless it dies, and there is always an agenda of unfinished business confronting mankind. The Great Society, which incorporates the vision and moral purpose of the American people, shows that they share this common human aspiration and obligation to make a better life on earth for all men.

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THE INTELLECTUAL'S PLACE IN AMERICAN GOVERNMENT

EUGENE J. MCCARTHY

A SUPERFICIAL READING OF THE POLITICAL HISTORY of the United States supports the view that American politics is anti-intellectual and that American government—and its institutions—is a product of the efforts of “practical” men.

Certainly, the Founding Fathers were “practical” men. Arnold Toynbee, in an address at Williamsburg, Virginia, in 1961, observed quite properly that: “Those great men were, of course, all agreed in working together for one objective that was immediate and definite. They were working for complete self-government for the thirteen colonies; and this political claim of theirs was based on precedent. They were claiming for themselves the political rights that the people of England had successfully asserted in the course

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of the preceding century, first in the English Civil War and then in the Revolution of 1688."

They were taking practical political action, knowing that the consequences of failure were almost certainly to be realized in their execution as traitors.

Politics Is Idealistic

At the same time, American politics is idealistic, and the reported division between politics and idealism is much more fancied than real. The failure to associate politics and politicians with the philosophical and intellectual arena of ideas arises, in part, from the very absence of genuine ideological conflict between men of ideas and men of action in American political life. Philosophers, historians, and men of ideas have been accepted as associates and advisers of politicians from the earliest days of our history.

G. K. Chesterton, in his book *What I Saw in America*, written in 1922, said: "America is the only nation in the world that is founded on a creed. That creed is set forth with dogmatic lucidity in the Declaration of Independence; perhaps the only piece of practical politics which is also theoretical politics and also great literature."

The "creed" was expressed in the Declaration in these words: "...all men are created equal, ...among these are Life, Liberty and the pursuit of happiness..." These words and these ideas were taken seriously by the men who drafted the Declaration of Independence. They were spoken by men in danger of being shot or hanged if the revolution they led turned out to be a failure.

The words and ideas they expressed were taken literally. They were not stated merely as a justification for the Revolution but were intended to establish a foundation in principle upon which *democratic institutions and traditions could be established anywhere in the world*.

What was incorporated in these early documents was a product of the whole tradition of Western political thought from Plato to the humanist and rationalist philosophers of the eighteenth century.

The influence of ideas and of men of ideas in politics today is somewhat different from what it was 180 years ago—or a hundred years ago, or even forty years ago when Chesterton wrote that every time the world was in trouble the demand went up for a practical man.

Unfortunately, he said, each time the demand went up, there

were several practical men available—when, in fact, what was needed to deal with an impractical muddle was a theorist or a philosopher. Today, when trouble arises, the call goes up not for a practical man but for a theorist, a philosopher, or even, in some cases, for a theologian.

In my judgment, the fields of study and of intellectual pursuit which bear most directly upon politics today or which are of greatest concern to the politician are these: history, economics, and moral or ethical science.

The Uses of History . . .

Politicians throughout history have been, of course, somewhat concerned about their place in history and about the movement of history as it bore upon their own countries and their own political action. It has not been uncommon for great military and political leaders of the past to carry their own historians or, in some cases, to be the historians of their own achievements. They often ordered the construction of their own arches and temples and were the patrons of artists and poets who, in turn, were expected to do well by them in the artistic record.

In the nineteenth and early twentieth centuries, the disposition to see one's own country apart from history, to assert its independence and unique character, was common among the Western nations. What passed for history or for political philosophy in too many cases was self-justifying and fictional.

Extremes of nationalism are always something of a threat to historians as well as to history, since leaders of a strongly nationalistic state, or those who speak for it, are inclined to believe that it is somewhat above or outside history, and to think of themselves as the centre and focal point of history, minimizing the efforts of the past and assuming that the patterns they established will be the model for the indefinite future. The questions of continuity and of relationships to the movement of history itself are discounted.

Nearly every politician today who says with some certainty that George Washington was the first President is said to have a sense of history. Such an observation in itself means little, but viewed in a broader context it reflects the deep concern for an understanding of history and a seeking by those responsible for government to interpret their own times and to make political decisions within the context and the movement of history.

The search for historical order and context has been deepened

and broadened in the period since the end of World War II. The history of the second half of the twentieth century cannot be written simply in terms of the growth and extension of Western civilization. All the continents, cultures, nations, and races of the world have become a part of contemporary history, demanding some explanation and certain inclusion.

The simple doctrines of evolution, of economic determinism, of the culturally superior states as dominant, or the idea of history as projections of great leaders—none of these is adequate.

Carl Becker's words have come to be accepted as having particular pertinence today. "To regard," he said, "all things in their historical setting appears, indeed, to be an instructive procedure of the modern mind. . . . The modern climate of opinion is such that we cannot seemingly understand our world unless we regard it as a going concern. . . . Historical-mindedness is so much a preconception of modern thought that we can identify a particular thing only by pointing to the various things it successively was before it became that particular thing which it will presently cease to be."

Not only are we influenced by the climate of opinion, but historical interpretation has also become of crucial importance in policy decisions.

. . . And Economics

The second intellectual discipline bearing upon politics in a direct way is that of economics. I do not mean to exclude other social sciences as having no bearing upon government and upon government decisions, nor would I discount the influence of science on our culture, but, in a very special and direct way, economic theory has come to play a great role in government economic and fiscal policy.

Some attention was given to economics by government in the period of the Great Depression in the United States. Theories of business cycles were developed. What, in rather popular political terms, was described merely as Keynesian economics became the limited guide for political economy.

Early in 1962, President Kennedy made the rather shocking suggestion that the President of the United States be given some discretionary power to adjust tax rates within limits and thereby make adjustments as to the amount of revenue the federal government would collect from the taxpayers. In 1963, the President

asked not for discretionary authority to cut taxes but urged the Congress itself to cut taxes to stimulate economic growth and expansion.

This was a new kind of argument for a tax cut. It challenged several accepted ideas in the field of political economy: the principal one being that in times of prosperity and a rising economy budgets should be balanced and federal deficits reduced; second, that federal deficits inevitably resulted in inflation; and third that government expenditures by their very nature were wasteful and non-economic.

For one prepared to defend himself on these three points, it was almost as important to be prepared to make a moral case as it was to make an economic one. Economists and others therefore had to make it clear that they were not in any absolute or moral sense in favour of unbalanced budgets; not in any absolute or moral sense in favour of inflation—either galloping or creeping; that they did not believe that governmental expenditures were never wasteful.

Each of these propositions, it was argued, had to be judged in the total context of the needs of the country and therefore related to the questions of war and peace and to the movement and condition of the economy, both domestic and international.

The second economic argument made against a tax cut and deficit financing was that such action would result in a larger deficit and therefore cause inflation. There were competent economists who argued that inflation would not result, but, in any case, the prospect of inflation was held by some as sufficient reason for not taking the proposed action.

... And Mixtures

This argument was based upon a mixture of economic and moral considerations. Speakers on the floor of the Senate asserted that whereas the greatest external threat to America was communism, the greatest internal threat was inflation.

Sumner Slichter, who has a reputation as a somewhat conservative economist, wrote a series of articles in 1959 dealing with the problem of inflation. In one of them, which appeared in the *New York Times Magazine* of March 8, 1959, he said: "There are ill-founded fears that creeping inflation will sooner or later become a gallop. Every country in Europe has had creeping inflation during the past ten years. The idea has become pretty well accepted that a continued drop in purchasing power of money is to be expected. And yet in virtually all countries the rise in prices

between 1953 and 1957 was considerably less than in the period 1948 to 1953."

He concluded: "Most important of all, people should realize that the alternative to creeping inflation is a fairly substantial amount of chronic unemployment. The problems of creeping inflation are a small price to pay for avoiding the much greater problems of unemployment and a rate of growth that falls far short of our potential."

The suggestion that expenditures or deficits might be used to move the economy from a relatively stable level of operation to a higher one was looked upon by some as an economic heresy. What the President and his advisers had suggested was that without a recession, at a time when the economy has levelled off at a relatively high point, it might be possible, through deficit financing—in this instance through tax cuts—to move the economy from that high level to a higher one without the intervention of a recession or of a serious falling-off in production.

This approach was opposed by some; their opposition was similar to that which would be the case if in the field of physics we continued to insist that only the theories of Newton can be applied. This is to accept that we are condemned to a kind of closed economic cycle; it is to set our sights too low and to fail to appreciate our potential for economic growth and economic progress.

... And Ethics

The third intellectual discipline relevant to politics today is moral or ethical science. The influence of moralists is most often indirect. Strictly speaking, politics is not an ethical science or an extension of ethics. It is the function of morality to define the ends and purposes of political power and to judge the methods and conditions of the use of political power; but the combination and application is the work of politics.

Maritain has said that moralists are unhappy people; so are politicians. "When the moralists insist on the immutability of moral principles," Maritain wrote, "they are reproached for making morality relative. In both cases, however, they are only upholding the claims of reason to direct life. The task of ethics is a humble one but it is also magnanimous in carrying the mutable application of immutable moral principles even in the midst of the agonies of an unhappy world as far as there is in it a gleam of humanity."

... And Politics

The task of the politician is, in a sense, even more humble than that of the moralist. His is not the responsibility of making the decision but rather a more menial one of putting it into effect. The fundamental objective of politics is to bring about progressive change in keeping with the demands of social justice.

Politics is concerned with ways and means and with prudential judgments as to what should be done, when it should be done, and in what measure as well as how it should be done. The politician, of course, must be a moralist himself, and he must pay attention to the voice of the moralist. It is most difficult to list any one man or even a few men whose moral judgments are clearly applied to political decisions.

The importance of moral principles is widely accepted today. There is recognition that principles about human dignity and freedom are the ultimate test of political decision. The concern of intellectuals in every field, and moralists, particularly, with the great questions of war and peace has had demonstrable consequences in the course of current history.

The widespread interest in international organization and understanding and even enthusiastic support for the United Nations are more than a reaction to the savagery of the Nazis and Fascists and more than a reflection of the fear of war. The distrust of the nation-state and of excessive nationalism clearly reflected historical experience, but the movements supporting international agreement, international trade, and international understanding have a moral as well as a practical base.

In 1963, the Congress acted on two measures, each of which involved a very great moral commitment of the people of the country. One was the test ban treaty, the other the passage of the civil rights bill. The way for action on these was prepared to a large extent by men who had been discussing the right and wrong of the issues involved for many years—people like Reinhold Niebuhr, John Bennett, Will Herberg, John Courtney Murray, and many others—and pursued in such publications as *Commentary*, *Christianity and Crisis*, *Commonweal*, the *New Republic*, *America*, and others.

The Mass and Speed of History

We have come to recognize that the mass of current history and

the speed of history make special demands upon both governments and people in this last half of the twentieth century. The mass or the volume—I hesitate to say “of problems”—of those things which demand our attention is greater than it has ever been.

Political responsibility today extends to the whole world. We can no longer set aside whole continents or whole nations or whole races as though they were not a part of contemporary history. We have to accept and, in some measure, give attention to all people in all places.

There is no place in the world today and no person in the world for whom we do not have some degree of obligation and responsibility. This increase in volume is true in every area of human learning and of human effort—in science, in technology, in the structures of society. This quantitative change in itself would be a great challenge if we were to respond to it only as a static condition.

But along with this increase in volume, there is a second most significant consideration, and that is that the speed of the change and development and of movement today is at a rate which is faster than it has ever been before. We are called upon to respond not upon a timetable or a schedule of our own making—much as we would like to have it that way—but, rather, to respond on the basis of a schedule or timetable which the very movement of history itself imposes upon us.

More Freedom

Man has more freedom than he has ever had before. He is more truly and completely human because he is more free from nature, more free from ignorance, more free from the material limitations of the past, more free of the past. On the other hand, there has been a growing separation between reason and life, between means and end, mind and matter, society and the individual, religion and morality, action and sensibility, language and thought, men in the community and men in the crowd.

I am not prepared to fix responsibility for conditions which do exist. Certainly, the changes that have taken place are not altogether the fault of theologians and historians and philosophers and men of letters. A limited case can be made for the treason of the clerks.

In recent centuries, many—if not most—spiritual and intellectual and moral leaders, or those who have traditionally been

so designated, were not as directly and immediately involved in the life and problems of their times as they should have been. They were guilty of indifference, detachment, and withdrawal. There was always the possibility that the gods could climb higher on Olympus and, by so doing, avoid the clamour of the world and of the crowd.

In the eighteenth and nineteenth centuries, there was a growing rejection of theology and philosophy, and even of history—an arrogant assertion that science and technology and new political and economic forms would provide the answer which philosophy and theology had failed to provide in the past.

The excuse of rejection no longer stands. The world today is not arrogant; it has been brought low. The world today is not suffering from illusion; it has been disillusioned. There is, of course, still a need for the long view and for the search of absolutes, but there is a great need for the application of that knowledge which we do possess to contemporary life and problems.

The dead hand of the past is less of a problem today—although we still use it as an excuse—than is the violent hand of the future which reaches back for us, imposing most serious demands.

There Is No Escape

There is little time to escape and few escape routes are still open. Some may wish to take the advice of Bob Hope, given in a commencement address a few years ago, when, in mock humour, he advised the graduates not to come out and face the world and reality, but to stay in. Or a similar escape taken by my nine-year-old son a few years ago. When asked what he would have preferred to be had he lived in Roman times—an emperor, a soldier, or a martyr—he declared that he would have preferred to be a lion.

Full withdrawal and retreat are no longer possible. Intellectual spokesmen and moral leaders are called upon today to prove the relevance of their ideas to life. By necessity of history rather than of choice, those who have long been pilgrims of the absolute have been forced now to become pilgrims of the relative as well.

Intellectual and moral leaders today cannot retreat in ignorance and half-truth, or go back into their own protected caves. Leonardo da Vinci could speculate on the principles of aerodynamics without giving any thought to the possibility that his knowledge would be used to construct intercontinental ballistic missiles. Descartes could develop new theories of mathematics without anticipating

THE INTELLECTUAL'S PLACE IN GOVERNMENT

that his conclusions might be incorporated in nuclear bombs.

Men of the past did not have to anticipate what might happen to their ideas and their conceptions when subjected to the power of computers. Nor did they have to worry about chain reactions, as men do today, not just in physics but in biology, philosophy, theology, and in the structure and function of society.

Time has caught up with the spiritual and intellectual leaders; their advance positions have been overcome.

The alternative to reasoned direction of life is a return to primitive conditions of ignorance and false fear. If one believes that man is the subject of history rather than simply the object, controlled by economics and by common will or by some other irrational force, if one acknowledges that the period of half-civilization and half-knowledge of the nineteenth century has been shattered, if one accepts that we must be prepared to face the judgment of our own person and of our nation and of our age, then the need is for a full and reasoned response.

Dignity, Trust, Confidence

We must reaffirm our belief in the dignity of every person, our trust in humanity, and our confidence in reason as the one truly human instrument which we must use for guidance and direction as we continue to live on the edge of disaster.

Since man is a creature who, in the long run, as Allen Tate says, must believe in what to know and know what to do, the intellectual and the politician both must continue to pass reasoned judgment on life and history, for without knowing, there can be no proper doing.

EUGENE J. MCCARTHY, *U.S. Senator from Minnesota since 1958, is the author of numerous works on American government, including "A Liberal Answer to the Conservative Challenge," 1964.*

BOOK WORLD

THE INDIAN NATIONAL MOVEMENT AND AMERICAN OPINION

By Harnam Singh

Ramakrishna & Sons, New Delhi. Rs. 20

Reviewed by Robert R. R. Brooks

An American, living in India, faces some temptation, in reviewing this book, to exaggerate the extent of American support to India's struggle for independence. In the present context of America's deep concern for the success of India's enormous effort to establish economic independence within a democratic political structure, there is an understandable wish to overstate America's early participation in the process.

In politics, the parallel is "I was for Kennedy before he won the West Virginia primaries." In social climbing: "I knew her well when she was in the fourth standard."

Similarly the Indian historian of Indo-

American relations is under some temptation to interpret the data of the past according to his current purposes. He may construe the evidence as proof of a baleful American intent to get in on the ground floor of postwar neo-imperialist exploitation. Or he may view it as proof of America's consistent dedication to the ideals of self-determination, political liberty, and civic rights.

The prejudices of historians and reviewers always colour their conclusions, but in this instance we are still very close to the events leading to Indian independence. Both Indian and American attitudes are highly sensitive to contemporary relations involving similar issues.

The issue then was political independence. The issue now is economic independence. The temptation of the historian and the reviewer is to read the present into the past.

Against this backdrop, Dr. Harnam Singh's survey of American opinion about India from 1850 to 1946 seems to me judicious, even-tempered, and scholarly.

By "judicious" I mean that his judgments are based on the conditions of the period, not those of 40 years of hindsight. He sympathetically explains the limited interests of Americans in Indian affairs in the 1920s and 30s, and the even more limited access of Americans to accurate information about India—or any information at all. For example, detailed news about the Amritsar massacre did not reach the U.S. until a year after the event.

By "even-tempered" I mean that he succeeds by understatement where polemics would fail. For example, he remarks that the *New York Times* and the *Christian Science Monitor* were the only two (papers) which showed more than superficial interest in the proposed Reforms. Considering the number of magazines and journals published in the country, he says, "the interest shown by them, too, was not up to the mark."

By "scholarly" I mean that a vast amount of hard work in digging for facts has gone into the formation of well-digested opinions. He surveyed the entire files of 16 American and seven British newspapers; 29 American and four British periodicals. He spent three years in the United States gathering data for his Ph.D. thesis on Indo-American Political Relations. And 17 years later his findings have matured into this book.

The only major source he has not drawn upon are the classified papers of the U.S. Department of State now available for his entire period up to 1944. For

this aspect of the problem he depended upon the memoirs and papers of Cordell Hull, Harry Hopkins, and Dwight Eisenhower. His conclusions about U.S. diplomatic opinion do not differ markedly from those of Shri B. Shiva Rao whose study of the relevant state papers were published in the October 1966 issue of *The American Review*.

In a broad summary of American opinion towards Indian independence throughout the long struggle, the author says¹ there were three sets of attitudes:

1. Liberals, with "progressive and enlightened views," who gave their entire sympathy to the people of India with assurances that they would do all they could to promote the success of the struggle for independence."²

2. Hesitant supporters, "sympathetic to the demands of the Indians," but doubtful whether India's vast "conglomeration of people of different races, languages and creeds of sharply differentiated social classes, and of widely varying stages of social culture" were ready for "the difficult art of managing their own affairs."³

3. A third group "greatly influenced by British propaganda" which "simply considered the Indians unfit for self-government."⁴

In its broadest terms Dr. Harnam Singh's report concludes that American opinion lined up quite solidly in support of Indian independence when the public was both interested and well informed.

But America was often not interested because India was a long way off. The major American sentiments were isolationist. There were pressing affairs at home. There were no clear or sufficient economic or diplomatic concerns. The news of events was often so late that it was stale. The events and issues were

¹ pp. 102-107; ² p. 103; ³ p. 106, ⁴ p. 107.

confused, complex, and apparently contradictory.

And America was often not well informed because its news sources were obscured by the zeal of American missionaries and the propaganda of British writers and press services.

After Mahatma Gandhi became the undisputed leader of the freedom movement, however, American attention and interest greatly increased. He was a dramatic, colourful, and compelling figure. He was a fascinating object of caricature, both friendly and unfriendly. The technique of non-violence stirred American imagination and sharpened the issues. He was news, and journalism paid attention.

As a result of greater interest, better information, and the passage of time, journalistic opinion as reflected in Dr. Harnam Singh's selections seems to have moved away from his group 3 (unfit to govern) towards group 2 (yes, but) towards group 1 (we're with you).

There is, of course, no way now of giving significant weight to different expressions of opinion. How, for example, can one compare the importance of the *New Republic* (always outright for Indian independence) with the *New York Times* (restrained and judicious) or the *Chicago Tribune* (usually conservative, but because of its long-time anti-British bias, favouring Indian independence)?

One can, however, say with certainty that American idealism supported Indian aspirations. How much did this mean in a world not notably influenced by ideals or by preaching? How much impression did it make on the British whose interests were at stake and who sat at the controls? Almost surely it had *some* influence upon the British conscience which, in turn, provided the context in which non-violence was effective.

How did America act when, at long last, its vital interests were profoundly affected by worldwide conflict? Did America see its own interests correctly, and were they in line with India's surge towards independence?

In early 1941, the Japanese navy reached the Bay of Bengal and shelled Madras. India was threatened and India was of critical importance to the Allies' hopes of saving the world from Hitler and his associates. Roosevelt, apart from his deep-seated devotion to political liberty for its own sake, believed that the assurance of independence would stiffen India's resistance to the Japanese threat. Churchill disagreed and resented American interference. Roosevelt pressed Churchill to make concessions. Churchill was adamant.

Roosevelt had to choose between a public break with Churchill—sure disaster—or easing his pressure on Churchill. As between two evils he chose the lesser, but in the process he made clear the long-run common interests of India and the United States.

To present-day American readers, unfamiliar with India's long struggle for political independence, Dr. Singh's study will have a special value. More than half of the book is devoted to a condensed but clear account of the major episodes leading from the late nineteenth century to Independence Day. Against the scenery of this historical background, he displays American press reactions to the events which brought political liberty to one-sixth of the human race.

To Indian readers disposed towards friendly relations with the United States and weary with the strident iteration of the adjectives "aggressive," "neo-colonialist," and "neo-imperialist," this authoritative work will be reassuring.

BOOK NOTES

These brief reviews are of books available at American Libraries in New Delhi, Bombay, Calcutta, Madras, Bangalore, Hyderabad, Lucknow, Trivandrum, Guntur, and Patna.

THE PLURALISTIC ECONOMY. By Eli Ginzberg and others. McGraw. 1965. 228 pp. In this book the authors see the U.S. economy as three principal sectors of enterprise: profit-seeking, non-profit, and government. Taken together, government and non-profit constitute what they term the "not-for-profit" sector. The authors centre their attention on this not-for-profit sector of the economy. Included in the discussion is the proliferation of the types of economic activity carried on by government and non-profit enterprises (foundations, institutions, etc.). This work is an important contribution to the study of the American economy and the major transformations that have occurred in it since 1929.

QUALITY OF THE ENVIRONMENT: AN ECONOMIC APPROACH TO SOME PROBLEMS IN USING LAND, WATER AND AIR. By Orris C. Herfindahl and Allen V. Kneese. Resources for the Future, Inc. 1965. 96 pp. This study on the utilization of natural resources shows the value of economic reasoning in an analysis of the problems contributing to the non-economic substance of these problems. Five main environmental problems are discussed here: water and air pollution, use of chemicals as pesticides, physical environment of urban places, and some problems associated with the use of rural areas.

THE JOHNSON HUMOR. By Lyndon Baines Johnson. Simon. 1965. 124 pp. A portrait of America's 36th President as seen through his wit and humour includes over 50 photographs to accompany the text. Besides the famous Johnson stories and Texas yarns, here are stories which delight his family and close friends as well as visiting dignitaries to the White House.

MEMORABLE QUOTATIONS. By John Fitzgerald Kennedy. Crowell. 1965. 314 pp. This collection of quotations serves as a guide to President Kennedy's views "on a wide variety of matters, foreign and domestic, expressed during the presidential election of 1960 and in the course of his duties and functions in the White House." Selected from his remarks at meetings, ceremonies, and press conferences, his official statements and messages, public addresses and campaign speeches, his inaugural address and the speech he was to have given in Dallas on Nov. 22, 1963, the excerpts run from one page to two lines in length.

HIGHER EDUCATION. Edited by Samuel Baskin. McGraw. 1965. 342 pp. Essays by various educators on new teaching methods and programme ideas being instituted in colleges and universities discuss significant experimentation taking place in higher education today. Attention

is given to programmes of the new colleges, curriculum, independent study, study abroad, uses of the new media and technology, buildings and facilities as they affect teaching and learning, the community as a resource for learning, programmes for the improvement of college teaching and administration, year-round use of college facilities, interinstitutional cooperation, and the financing of the college.

THE GREATEST CHALLENGE. By Martin Caidin. Dutton. 1965. 320 pp. The great promise of manned space exploration is projected in this popular, well-informed review of recent discoveries and experiments in man's living in space, including psychological and physical hazards, all discussed in layman's terms.

ART GUIDE, NEW YORK. By A. L. Chanin. Horizon. 1965. 320 pp. A guidebook to the art museums of New York describes the seven major museums in New York City, giving in brief detail the most important paintings in each collection with a list of the most notable sculpture. Included are brief biographical sketches and evaluations of the artists, brief descriptions of 18 other New York museums and institutions, and a selected list of New York art galleries with notes on the specialities.

REPORTING THE NEWS, SELECTIONS... Nieman Reports. Harvard. 1965. 443 pp. Outstanding writings of 46 journalists are selected from the quarterly *Nieman Reports*. The introduction describes the establishment of the Nieman Fellowships at Harvard "to promote and elevate standards of journalism. . ." and summarizes the history of the Fellowships. The articles deal with a Responsible Press, Role of the Press, Newsmen at work, Foreign Affairs, Government and the Press, and Books and Men.

WHAT'S UP IN ARCHITECTURE, A LOOK AT MODERN BUILDING. By William Garland Rogers. Harcourt. 1965. 192 pp. In analysing several of the important buildings in American cities as well as a few in Europe an appraising view of twentieth-century architecture is presented. Covered are materials and techniques with a brief survey of the roots of American

architecture, and studies of some of the great architects who developed new trends.

MONETARY REFORM FOR THE WORLD ECONOMY. By Robert V. Roosa. Harper. 1965. 173 pp. Concerned primarily with international balance of payment problems, the key proposal discussed here is the creation of a new unit of monetary exchange backed by strong national currencies contributed to a special account in the International Monetary Fund. The author's views promise to be the centre of discussion among specialists during the months ahead.

POWER AND HUMAN DESTINY. By Herbert Rosinski. Praeger. 1965. 206 pp. This book is an extended essay on the meaning and significance of power in the development of human civilization. Rosinski traces the development of modern civilization, isolates its unique characteristics and thereby highlights the problem of contemporary power. The plight of modern man is that he is engaged in an ongoing process of creating ever more awesome forms of power but becoming less capable of intelligent control. The solution is to educate modern man to become conscious of his responsibility to control the very condition of his freedom.

POP ART. By John Rublowsky. Basic Books. 1965. 174 pp. The author sees the pop movements as the first truly American art and emphasizes American leadership in the field. Included are biographical sketches of five outstanding pop artists—Roy Lichtenstein, Claes Oldenburg, James Rosenquist, Andy Warhol, and Tom Wesselman—with descriptions of important pop art galleries and collectors.

A THOUSAND DAYS; JOHN F. KENNEDY IN THE WHITE HOUSE. By Arthur Meier Schlesinger, Jr. Houghton. 1965. 1087 pp. This long book, by President Kennedy's Special Assistant, is a detailed account of John F. Kennedy's political career from 1956 to the assassination in Dallas in 1963. It is called a personal memoir by a presidential associate rather than a comprehensive history of the Kennedy Presidency. Schlesinger presents inside

BOOK NOTES

views of the 1960 convention, the selection of the Vice Presidential candidate, and the campaign for the Presidency. Kennedy's personal side is portrayed, including his sense of humour, his interest in the arts, and his relations with his family and staff, but the critical moments in the "thousand days" make up the framework of the book. President Kennedy's sincere interest in the welfare of the nations of Asia, Africa, and Latin America is apparent throughout.

THE TWO WORLDS OF AMERICAN ART.

By Barry Ulanov. Macmillan. 1965. 528 pp. This comprehensive study of American culture in the twentieth century is unique in that it is the work of one man. Serious music, popular music, and jazz are discussed, as well as painting sculpture, photography, and architecture. For literature there are chapters on poetry, the short story, the novel, the mystery story, and science fiction and fantasy. Other sections cover the dance, theatre, movies, radio, television, and criticism and censorship. The author forecasts a great future for the arts in America and recommends some sort of government subsidy for the private arts.

PAINTING IN AMERICA, FROM 1502 TO THE PRESENT. By Edgar Preston Richardson. Crowell. 1965. 456 pp. Covering more than 450 years of the growth and development of both the craft and the fine art of painting in America, Richardson discusses the trends, schools, and influences of American painting and the painters of lasting influence from Columbus' discovery to the present. Included are many biographical sketches and almost two hundred illustrations in colour and black and white. In the revised final chapter abstract expressionism is discussed as one of the most vital forms of painting to develop in the U.S.

DIRECT USE OF THE SUN'S ENERGY. By Farrington Daniels. Yale. 1964. 374 pp. Of interest to both the layman and the scientist, this summary of the research and applications of solar energy points out the challenge, limitations, and practicality of converting the sun's rays into mechanical and electrical power. All aspects of the subject are covered—explanation, measurement, and collection of solar radiation; its use in cooking, storage of heat, solar furnaces and engines; its use in cooling and refrigeration. Directions

are given on how to construct some simple devices.

FOLKSINGERS AND FOLKSONGS

AMERICA. By Ray McKinley Lawless. Mere 1965. 750 pp. Besides biographical annotation many singers of folksongs, this book contains information about folklore societies, folk fest discussion of folk music instruments, their history, structure, and use, and a most complete list of folksongs and a discography.

A TREASURY OF LINCOLN QUOTATIONS

By Abraham Lincoln. Doubleday. 1965. 32 pp. Only the words of Lincoln which have proven to be authentic are included in this one-volume collection of the best of his famous as well as little-known quotations. Statements taken from speeches, letters, and other writings with subject headings from "Abolition," "Youth." Comments range from reflections on Lincoln's own background and family to opinions on the issues of the day, such as slavery, rights, and war.

THE CITY MAN'S GUIDE TO THE FARM PROBLEM.

By Willard Wesley Cochrane. University of Minnesota. 1965. 242 pp. This excellent analysis of the farm problem utilizes relevant research information to give a clear picture of the nature of the technical forces remaking culture and the dimension of the social economic problems associated with technological change. The description of the foreign situation is a well-balanced analysis of the world with its problems of government intervention in international trade, problems of developing countries attempting to expand agricultural exports and issues in expanding food aid to them.

DECORATION USA.

By Jose Wilson and Arthur Leaman. Macmillan. 1965. 275 pp. By two young professionals, covers new interior design trends such as family rooms, vacation homes, home offices, and pool houses, as well as changes in domestic architecture. Emphasis is on originality and its 400 illustrations are on originality, creativity, and good taste. The book should interest to artists, designers, interior decorators and people in related fields.

THE AMERICAN REVIEW

CHINA STANDS ALONE
Oscar Gass

REDISCOVERY OF THE MARKET
Charles Lindblom

LIVING PREHISTORY IN INDIA
D. D. Kosambi

THE OCTOBER COUP IN INDONESIA
Donald Hindley

EDWARD HOPPER IN COLOUR

OCTOBER 1967

The lesser communisms rejected the idea of a world meeting to condemn the Chinese not because (with the partial exceptions of the parties of Albania, North Vietnam, and New Zealand) they share Chinese views, but because the shrewdest and most independent among them (Italians, Yugoslavs, Rumanians) do not wish to create the precedent of *any* excommunication.

Even Albania has desisted from approving the Red Guard and the "Great Cultural Revolution." North Korea has drawn closer to the U.S.S.R. The party in Japan has broken with the Chinese. The Indonesian party—after a senseless, horrible massacre—is no more.

In Africa, the Chinese have retained diplomatic relations with only fourteen out of thirty-eight independent states. Their rejection, except in Congo, Brazzaville, where their friends rule, has grown out of a fantastic record of "making revolution" by supporting plots and putsches. Even Castro has had a bitter public quarrel with them. Elsewhere in Latin America, the Chinese voice brings affirmative response only where a few desperate men assemble.

China now speaks only to itself.

OSCAR GASS, *who is a consulting economist in private practice in Washington, D.C., has served as economic adviser to various foreign governments. His experience in government also includes a five-year period as a chief economist in the office of the Secretary of the Treasury, under the Roosevelt administration (1938-1943).*

REFERENCES

- ¹ Because of its superb photographs, I put first *China*, by Emil Schulthess, Viking, 1966. Perhaps even better, as photographic history, is Marc Riboud, *The Three Banners of China*, Macmillan, 1966. Quotation from page 12.
- ² John S. Aird, "The Population Count—'Reds' Versus Experts," in *Diplomat*, September 1966, a first-quality essay. On related topics, see also *Nonagricultural Employment in Mainland China*, by J. E. Emerson, Washington, 1965.
- ³ Recent U.S. Department of Agriculture views are well stated by Marion R. Larsen in

CHINA STANDS ALONE

Foreign Agriculture, August 8, 1966, and *The Far East . . . Agricultural Situation*, March 1966. Some elements of the background are analysed in *Food and Agriculture in Communist China*, by J. L. Buck and others, Praeger, 1966; the two essays by Owen L. Dawson have particular current relevance.

- ⁴ Our best analysis of China's international economic relations, through 1963, is Alexander Eckstein's *Communist China's Economic Growth and Foreign Trade*, McGraw Hill, 1966.
- ⁵ The reaction of a sensitive Chinese of the older generation to this totalitarian intensity is well conveyed in Mu Fu-sheng, *The Wilting of the Hundred Flowers*, Praeger, 1962, especially pages 116 ff., 128 ff., and chapters 4 and 6. See also "From Friendship to Comradeship," by Ezra Vogel, in *China Quarterly*, January-March 1965.
- ⁶ This consists of twenty-nine issues of the secret "Bulletin of Activities" of the Chinese army for 1960-61, issued as *The Politics of the Chinese Red Army*, edited by J. C. Cheng, Stanford, 1966.
- ⁷ Perhaps the most valuable single guide for following current Chinese affairs is the little weekly bulletin, *China News Analysis*, published since 1953 in Hong Kong.
- ⁸ A reasoned evaluation is "Communist China's Capacity to Make War," by Brigadier-General S. B. Griffith II, in *Foreign Affairs*, January 1965. One important strand is ably treated in *Sino-Soviet Military Relations*, edited by R. L. Garthoff, Praeger, 1966.
- ⁹ On these themes, a learned, thoughtful essay, with which I do not entirely agree, is "China in the Postwar World," by A. M. Halpern, in *China Quarterly*, January-March 1965.
- ¹⁰ I so personalize the letter of July 28, 1964, from the CCP to CPSU, despite the Red Guard assertion that Mao claims to have been treated like a dead father after 1958. The best guides through the conflict are Donald S. Zagoria, *The Sino-Soviet Conflict, 1956-61*, Princeton, 1962; William E. Griffith, *The Sino-Soviet Rift [1962-63]* and *Sino-Soviet Relations 1964-65*, M.I.T. Press, 1964 and 1967.

REDISCOVERY OF THE MARKET

CHARLES E. LINDBLOM

WHAT IS THE SIGNIFICANCE of the great debate, already several years old, on the appropriate role of profits in the planned economies of Communist Europe?

One interpretation of the change in Communist thinking is that communism is turning capitalist. Many Americans are delighted to accept this interpretation. But the Communists do not see their reforms in this light.

Indeed, the significance of the reforms has little to do with the anti-thesis of capitalism and socialism. The new and growing use of profitability criteria in Communist enterprises can better be understood as a phase in *a worldwide rediscovery of the market mechanism*.

The Market Mechanism Is Not Capitalism

Capitalism and the market mechanism are not the same thing. They are often confused with each other, because it was under capitalist auspices that the market mechanism first became, on a vast scale, the organizer of economic life. But the market mechanism is a device that can be employed for planned as well as unplanned economies, and for socialism and communism as well as capitalism.

Today the market mechanism is a device both for the organization of the relatively unplanned sectors of the American economy and for such central planning as is practised in the United States.

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In Britain and Scandinavia, the market organizes both the private and socialized sectors of the economy. In Yugoslavia, it serves as an overall coordinator for an economy of publicly owned enterprises. In many underdeveloped countries, it is a powerful tool of development planning. It is this market mechanism rather than capitalism that the U.S.S.R. and its satellites are trying to employ, to improve their planning.

Except for a convulsive attempt between 1918 and 1921, Soviet policy has never questioned the practical usefulness of money and prices. This does not mean, however, that the Soviet Union has heretofore made much use of the market mechanism.

By the market mechanism, we mean the use of money and prices in a very particular way. Prices and price movements are employed—instead of targets, quotas, and administrative instructions—to give signals to producers with respect to what and how much they should produce; and prices of labour and materials consumed are set to reflect the relative value of these inputs in alternative uses to which they might be put.

Pricing to Evaluate Alternatives

It is the possibility of using a pricing process to evaluate alternative possibilities and to cue producers accordingly that has struck a new note in Communist economic policy, in the economic reorganization of Western Europe, and in the economic development of the nations still in early stages of growth.

The significance of the development, of which Communist reforms are only a part, can be appreciated in the light of its own history.

Adam Smith and Laissez Faire

Most people who know anything at all about the market mechanism seem not to have advanced beyond Adam Smith's view of it. He saw it as *an alternative* to government control of economic life. He was concerned about inefficiency and other defects of mercantilism; and, to speak anachronistically, he thought he had found in the market mechanism a substitute for incompetent planners. His specific insights were profound.

He saw the possibility that resources could be systematically allocated in response to human needs as a by-product of "selfish" individual decisions simply to buy or to sell.

He saw that prices established by consumers in their trading with

producers could establish a set of signals that could direct the productive processes of the whole economy.

He saw that competitive bidding for inputs would establish a market value for them that would make possible a comparison of their productivities in alternative uses.

He saw that a comparison of the money cost of production with money receipts could control the flow of resources into each of their alternative possible uses.

Finally, he saw that the market mechanism was for all these reasons an extraordinarily powerful device for decentralizing economic decisions.

In all this, however, his vision was limited: the market mechanism was always a private enterprise market and always an alternative to planning.

Market Socialism

It was not until the development, over a century and a half later, of the theory of market socialism that any significant number of people perceived the possibilities of using the market mechanism in a completely socialized economy. But even today the idea of market socialism remains esoteric.

But a few socialists have known that prices could be manipulated by government in such a way as to reflect the values that consumers put on consumer goods and services, and also to reflect the values of inputs in alternative uses.

Prices under Socialism

Their discussion of the pricing process under socialism clarified the useful functions that prices can perform. If, for goods and services in short supply, prices are systematically raised by government pricing authorities, the high prices can be taken as signals for increased production, while being at the same time at least temporary deterrents to consumption. Similarly, if prices are systematically lowered for goods in overabundant supply, the low prices can be taken as signals by producers to curtail supply, and by consumers to increase consumption.

But, though the theory of market socialism made it clear that the market mechanism could serve socialism as well as capitalism, it, nevertheless, did not much interest the socialists of Western Europe or the planners of Communist Europe. For the market socialists had developed a model of a socialist economy that left very little room for central

planning. Their socialist market mechanism was designed, as was the market mechanism of classical economics, to serve the preferences of individual consumers rather than the priorities of central planners.

Communism vs. Consumer Sovereignty

As in a capitalist economy, in this kind of market socialism the consumer remained sovereign—at a time when most socialists, planners, and Communists were looking for ways to effect collective purposes and national goals, rather than individual preferences.

In the Communist countries, the possibilities of market socialism were underrated for still other reasons. Communist ideology was antagonistic to the very idea of the market, hence inevitably to market socialism. Academic and professional Soviet economics was also antagonistic to the orthodox tradition in economic theory out of which the theory of market socialism sprang.

Finally, with respect to formal planning and resource allocation, the overwhelming concern of Soviet policy was “balance” rather than what economists call optimality. Optimality involves a careful evaluation of returns to production in all alternative lines. To Soviet planners, however, the need for big allocations to steel, electric power production, and national defence seemed obvious.

Speaking very roughly, all that remained to be done was to insure that allocations for the rest of the economy were approximately consistent with the crudely calculated allocations to these high priority sectors. And even this formal interest in balance was secondary to their interest in the gross growth of physical output.

The Market Mechanism for Centrally Determined Objectives

If the market mechanism was ever to be of any use for central planning, it had to be shown that prices could be set to reflect centrally determined values, and not merely individual consumer values.

In the economics of the West, it has in fact long been clear that they can do so. For example, a subsidy to maritime shipping lines or to airmail carriers is a way of raising the price received by those who provide these transport services, thus signalling them to increase their production of the services. Similarly, a tax on liquor is a way of depressing the price received by manufacturers and distributors, hence a way of signalling them to restrict output.

The result of these interventions—either subsidies or taxes—is to achieve a price that reflects both individual consumer preference *and*

the preferences of governmental authorities.

A government can go even further—and in wartime often does. It can completely eliminate the effect on price of individual consumer demands so that producers respond to a price set entirely by government. This can be done either through the imposition of a legal price or by exclusive government purchase of commodities and services, after which government agencies either consume the purchased goods and services themselves or, in the case of consumer goods, redistribute them in some way to consumers.

Avoiding Administrative Controls

Using the market mechanism in this way is an alternative to direct administrative control—to targets, quotas, physical allocations, specific instructions, etc. It is not always a good alternative, but it often is, since it is a way of manipulating incentives powerfully while leaving the actual decision—to produce or consume more or less—in the hands of the agency or enterprise whose price has been altered.

Hence, a general virtue of the market mechanism as an instrument of central direction is that it permits extraordinary decentralization of detailed decision making.

To understand the possibility of subordinating the market mechanism to governmental rather than to individual choice, it is essential to distinguish between actions in which governments signal their production targets through prices, and actions in which they intervene in the market mechanism to alter the results without, however, actually using prices systematically as such a signalling device.

To raise agricultural prices, for example, in order to stimulate agricultural production is a way of employing the market mechanism for the achievement of a centrally determined goal of high agricultural production. On the other hand, to raise agricultural prices as part of a complex process of restricting farm output (as in the U.S.) is an entirely different kind of operation, in which direct administrative controls (such as acreage quotas) replace the market mechanism.

Or again: depressing the price received by a manufacturer by imposing a tax on his output is a way of implementing a central decision to discourage consumption of the commodity, whereas the general imposition of legal maximum prices to control inflation has the effect of interfering with the market's ability to reflect either collective or individual choices and will ordinarily give rise to rationing, or to some other administrative device for the allocation of goods and services.

Perhaps it is the easy confusion of miscellaneous intervention in the

pricing process (which the Communist economies have always practised) with the skilful use of pricing to implement central planning of production that has contributed to Communist indifference to the latter.

In any case, the Western demonstration that the market mechanism could be used to implement central priorities did not significantly affect Communist policy until certain other developments occurred. Even as late as 1950, the model of market socialism seem to be consigned to a limbo of interesting irrelevancies. Ideological barriers were still strong.

Yugoslavia

The Yugoslav economy was the one sensational exception to Communist indifference to the market mechanism. Yugoslav communism was indigenous, not imposed by the U.S.S.R. as in the satellites generally. Political relations with the Soviet Union were such that in Yugoslavia independence in economic policy came to be valued rather than feared. Moreover, Yugoslav intellectuals and politicians had closer ties with their counterparts in the West than did any of the other Communist countries.

In 1952, recoiling from the inefficiencies of detailed administrative control over the economy, Yugoslavia brought into being a greatly decentralized market socialism. The change of direction, taken together with the rapid growth that ensued, excited much interest in the Communist world.

The significance for communism of the Yugoslav venture was greatly diminished on one score, however. For when the Yugoslavs abandoned detailed administrative control over the market mechanism they also went a long way towards consumer sovereignty as a replacement for the central direction of the economy. Hence, in the eyes of Communists elsewhere the Yugoslavs had largely abandoned central planning itself.

New Freedom for Economic Inquiry

New possibilities for economics were opened up by Stalin's death in 1953. Soviet economists, engineers, and administrators could finally look with some freedom at the lessons to be learned from foreign experience with the market mechanism. One especially noteworthy gain for economic analysis was the lifting of Stalin's capricious ban on mathematical economics (input-output analysis, and linear programming, etc.).

Soviet mathematical economics, reaching back to work originating in the 1930's but not then pursued further, demonstrated independently

of Western economics that pricing can be made useful to the planning of resource allocation even in the absence of any actual exchange between a buyer and a seller.

If we consider all the alternative combinations of end products that an economy can choose from, and all the alternative combinations of inputs that might be used to produce any given output, we see that there are vast possibilities of substitution—of one end product for another, and of one input for another.

These possibilities of substitution can be represented by “substitution ratios”—and these substitution ratios can be expressed as a system of prices. (In the absence of any actual transaction in which a real price would be set, they are often called “shadow prices.”) *Pricing turns out therefore to be implicit in the very logic of rational choice among alternative uses of resources.*

Pricing as Logic

This discovery clearly removes certain traditional ideological objections to market pricing, for it makes clear that pricing is not a capitalist invention but a logical aid to rational calculation even in circumstances far removed from capitalist buying and selling.

Whether in fact the discovery has yet achieved this consequence for Soviet thought is not certain, however; for Soviet mathematical economists have, on the whole, drawn the inference, not that the market mechanism might now be more openly examined, but that such pricing as might be achieved through the market mechanism can in principle now better be achieved through further mathematical analysis and electronic computation.

The “in principle” is crucial, since a prodigious amount of information needs to be gathered and processed in order to substitute computers for actual markets; and so far the accomplishment is beyond the capacity of economists, Soviet or Western.

Nor can it be said with confidence that there is any way to gather and test the required information except by putting consumers or planners in the position of actual choice in a real market. Still, the exploration of the practical mathematics of resource allocation is far from its maturity.

The Rising Concern for Allocative Efficiency

In any case, the discovery of “shadow pricing” did not of itself overcome Communist disinclination to exploit the market mechanism.

REDISCOVERY OF THE MARKET

A final consideration was the growing complexity of the Soviet economy, with complexity outstripping admittedly growing Soviet competence in planning.

The economy became more complex for at least two reasons: with the rising standard in living, the demand of consumers for varied and higher-quality consumer goods came to be more pressing; and with technological advance, alternative production possibilities became more numerous and complex.

Soviet policymakers could no longer be satisfied with the simple mobilization of large quantities of capital, and the attendant mobilization of agricultural labour, for industry.

Balance Is No Longer Sufficient

It is especially noteworthy that the older Communist concern for "balance" is, in the face of this new complexity, no longer thought sufficient. It is increasingly difficult to find some clear superiority of one pattern for a few key industries over another alternative pattern. And that being so, Communist countries can no longer be satisfied with merely balancing the outputs and inputs of all other industries to satisfy a prior commitment to a few key programmes.

In short, consistency in an economic plan is no longer enough; optimality in a plan is now becoming a pressing objective. Hence, finally, the new interest in the market mechanism.

In their forthcoming study, *The Soviet Capital Stock 1928-1962*, Raymond P. Powell and Richard Moorsteen will document still another hypothesis to explain the new Soviet interest in improved resource allocation ("optimality"). The Soviet Union, they suggest, has been exhausting the possibilities for rapid growth through indefinitely larger and larger capital investment; it must now either find an alternative source of growth—i.e., a better allocation of resources—or resign itself to a lower growth rate.

Paradox of Planning

How far the Communist economics will go in employing the market mechanism, of course, remains to be seen. An ideological and traditional resistance to the market mechanism does not quickly evaporate and presumably will never wholly evaporate. Moreover, a market mechanism is not always and universally a serviceable instrument for economic organization. Even in any economy like that of the U.S., in which ideology is all on the side of the market mechanism, its use has

Invective Rages . . .

The Russians charged:

*The Chinese build communism with romantic illusions;
They neglect the proletariat of the advanced countries;
They are adventurist on war and peace;
They are rash in the face of nuclear destructiveness;
They pursue great power "special aims and interest . . . which
cannot be supported by the military strength of the socialist
camp";
They engage in racist propaganda against whites.*

The Chinese countercharged:

*The U.S.S.R. is restoring capitalism;
It diverts the proletarian masses in advanced countries from
the true road of "smashing the old state machinery [chiefly the
armed forces] and establishing a new state machinery [chiefly the
armed forces]";
It abandons the revolutionary national liberation struggles;
It propagates "nuclear fetishism," in denial of the importance
of the soldier's spirit;
It spreads the slogan of a Yellow Peril.*

Mao personally (July 10, 1964) challenged the territorial extent of the U.S.S.R. though he also suggested, three days later, that China might wait long for rectification. Chinese transition to communism, he said, would still require "anywhere from one to several centuries."

Charge and countercharge vied in astringency of insult—with the Chinese sustaining a consistent superiority. On July 28, 1964, Mao wrote Khrushchev¹⁰ (in response to Khrushchev's effort to assemble a meeting of parties to condemn the Chinese):

*You are falling into a trap of your own making and will end by
losing your skin. . . . We firmly believe that the day your so-called
meeting takes place will be the day you step into your grave. . . .
Once again we sincerely advise you to rein in on the brink of the
precipice. . . . But if you refuse to listen and are determined to
take the road to doom, well, suit yourselves. Then we will only
be able to say: "Flowers fall off, do what one may; Swallows
return, no strangers they." With fraternal greetings.*

... *Unabated*

Khrushchev's removal made only a transient and trivial change. According to the Chinese, already on November 14, 1964, the new Soviet leadership

... told the members of the Chinese party and government delegation to their faces that there was not a shade of difference between themselves and Khrushchev on the question of the international Communist movement or of relations with China.

The leadership which succeeded Khrushchev has shown no more willingness to help China become a modern great power and no greater indulgence of Chinese ideas of how to help "make revolution."

Though, after Khrushchev's fall as before, the Russians have suggested *some* enlargements of collaboration, both economic and political, the Chinese have uniformly rejected these advances as made in bad faith, accusing the Russians of trying "to sell horsemeat as beefsteak." Particularly after the Soviet-American cooperation in ending the Indian-Pakistani hostilities (September 1965), the Chinese rage observed no limits. Sometimes Chinese spokesmen described the U.S.S.R. as worse than the U.S. because more tricky.

The Russians, for their part, accused the Chinese of trying to precipitate war between the U.S.S.R. and the U.S., while the Chinese, in their own expression, would sit quietly on a mountain, to watch the battle of the tigers.

China Is Alone

But it would be great error to believe that there is some uniqueness in China's separation in sympathies from the U.S.S.R. On the contrary, with few qualified exceptions, China is similarly separated from other Communists and non-Communists, from Asians and Africans and Latin Americans, as well as Europeans and Americans.

Characteristically, in the Middle East, where the great powers, including the U.S.S.R., have recently used their influence to discourage grand confrontations, Mao has personally urged the Arabs to destroy Israel. Imperialism, he said, has created two bases of oppression in Asia—Formosa in the East and Israel in the West. Ahmed Shukeiry, leader of the Palestine Liberation Organization, boasted in Cairo on January 4, 1967, that it was in China that his officers were being trained and from China that his weapons were coming.

to be constrained by the recognition of its limitations.

In the Communist case, there remains one conspicuous obstacle to extending the employment of the market mechanism, sometimes referred to as the "paradox of planning." The problem can be posed this way: if the planners intend to use prices to signal production goals for the economy, they cannot set appropriate prices for end products until they first decide what quantities of various end products they desire. But they cannot intelligently decide on appropriate quantities of end products unless they know their costs, i.e., the resources used up in their production.

Now, in a market mechanism, these costs are represented by prices; and this is to say that they cannot determine desired quantities of end products until they know prices. But we have just said that they cannot determine prices until they know what quantities of end products they desire!

This problem does not arise when the price mechanism is used to implement *any single choice*, as in a Western economy, because a decision, say, to expand the production of maritime transport services can be based on the prices already prevailing on the market.

Planning an increase in the production of no more than a few commodities or services does not so alter price relationships and production patterns for the entire economy as to invalidate prevailing prices as guide lines for the planners. But to plan, through pricing, a production pattern *for an entire economy* promises readjustments of prices that will invalidate the very set of prices that the planners depend upon for making their plans.

Planning as a Series of Choices

It follows that the fullest use of a market mechanism as an instrument for central planning would require that central planners actually operate, not directly through a master plan in which all major lines of production for the economy are simultaneously established, but through a large number of (and a series of) specific choices for each of all outputs or industries to be planned.

When a choice is made for any output or industry, the outputs and prices for other industries need to be regarded—for planning purposes—as unchanged. To make the fullest use of the market mechanism, central planners need to work out a strategy for goal-setting and pricing (against a background of the overall general plan) that proceeds through many specific *and sequential* price and production decisions.

Such a procedure, it may be the case, is already in embryo in the Communist economies—even though, for lack of understanding of its utility, it is more often hidden than openly displayed. Given the complexity of the task of comprehensive, synoptic national economic planning, and given also the inevitable limits on man's intellectual capacities, even where these capacities are extended by electronic computation, planning all over the world tends to break down into clusters and sequences of specific decisions.

The mere construction of detailed five-year plans does not prove that anyone or any organization has achieved an integrated synopsis of the elements of the plan; instead these plans are typically a collection of targets and policies from many sources.

The Rediscovery of the Market in the West

Outside the Communist orbit, an appreciation of the usefulness of the market mechanism has been most conspicuously on the rise since World War II. With good reason, the market was under great attack in the depression of the '30's, the severity of disillusionment with its usefulness nowhere more vivid than in the American NRA, an attempt at partial displacement of the market in favour of private and public administrative controls.

But in the late '30's, Keynesian economics began to hold out the promise of ending depressions by improving rather than eliminating the market mechanism; and Western governments, learning the lesson, have in recent years sustained higher levels of employment than used to be thought possible.

Similarly, taxation and transfer payments, as well as provision of subsidized public goods like education, have attacked problems of inequality in income distribution—such problems can therefore no longer motivate proposals to disestablish the market mechanism.

The result is that, in the West, the market mechanism is in better repute than ever before, as is indicated in the decline of socialist opposition to the market mechanism both on the Continent and in Britain, where after World War II socialists deliberately subjected their newly nationalized enterprises to market controls rather than to the battery of administrative controls they had once contemplated. And the great event in Western European development in recent decades has been a substantial move towards unification, not through common government, flag, army, or language, but through the Common Market.

The Developing Nations: Prisoners of Orthodoxy

As a group, the underdeveloped nations of the world are lagging in their understanding of the usefulness of the market mechanism. Abstractly, they should be eager to exploit every possibility for economic advance; in fact, they stand in a kind of backwater.

One reason is that their leaders and intellectuals are often prisoners of a once exciting but now stifling orthodoxy. Some of them are prisoners of early Marxian doctrine on planning, the very orthodoxy from which European communism is escaping. Others are prisoners of English socialism of the style and date of Harold Laski, or even of earlier versions of English socialism—in either case antagonistic to the market mechanism.

But times change: although Nehru was a prisoner of both, his daughter may turn out to be a prisoner of neither.

Another reason is, oddly enough, the insistence of the United States, the World Bank, and other lenders that underdeveloped countries formulate national economic plans in order to qualify for aid. They mean by a plan a balanced and consistent set of investment outlays. The effect is to divert some of the best brains in these countries away from high priority questions of growth strategy to the construction of reconciled investment programmes reminiscent of those the Communist countries are trying to leave behind as inadequate!

Balanced Investment vs. Growth Strategy

In India, for example, the question of the size and internal consistency of the five-year plans overshadows in public discussion, and in the attention it receives from experts in Indian government, many more rewarding questions of growth strategy, including such questions as how the market mechanism might be employed to hold out incentives to farmers to raise food production or how it might ration scarce foreign exchange in such a way as to raise substantially the level of economic achievement.

To be sure, just how much the developing economies should count on the market mechanism is subject to much dispute. The point being made here is only that the developing countries themselves do not well understand the issues, and have often not understood the fact that, for many of the problems they face, they can employ the market mechanism in tandem with other methods.

The prospect that the developing countries may take a new view of the market mechanism as an instrument of planning is, of course,

greatly enlarged by what they now see happening in Communist Europe. For even if they do not intend to follow the Communist path, the evidence that Western and Communist economies alike are finding the market mechanism useful is certain to impress them.

The Best Use of the Market

How they can best employ the market mechanism depends upon the particulars of their circumstances. But on a few counts a general usefulness of the market mechanism for these economies can be predicted.

First, they all suffer desperately from a shortage of administrative skills and organization: they are not very competent in executing *any* kind of plan, economic or otherwise. Even the best of their civil services have developed procedures and traditions more suitable to keeping the peace than to stimulating economic development. Hence, on this score alone, they need the market mechanism more than do the advanced countries of the world.

Secondly, most of them have accumulated a mixed bag of administrative interventions in the market mechanism, such as price controls and exchange allocations, which have undercut the serviceability of the market mechanism without putting any positive administrative programme in its place.

To impose, for example, maximum prices on food grains in order to hold down the price of food in towns and cities saps the farmer's incentive to produce more. It takes away the monetary incentive and puts nothing in its place—it destroys one mechanism of development without substituting another.

Thirdly, while the development of an economy through administrative techniques furiously engages the energies of a planning elite, participation in development through the market mechanism is open to everyone and, indeed, typically engages most of the adult population. Cueing, signalling, rewarding, and penalizing through the market mechanism are methods of drawing on the largest possible number of responses—and, in addition, a method of extricating a traditional peasantry from older institutions and habits of life that retard development.

Fourthly—and here is a consideration of enormous importance to most developing countries—they need the market mechanism because they cannot take the route to rapid development that the Soviet Union took from the 1920's to the '60's.

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THE BOWSPRIT	4
CHINA STANDS ALONE	7
<i>Oscar Gass</i>	
REDISCOVERY OF THE MARKET	25
<i>Charles Lindblom</i>	
LIVING PREHISTORY IN INDIA	39
<i>D. D. Kosambi</i>	
THE OCTOBER COUP IN INDONESIA	51
<i>Donald Hindley</i>	
TOXIC SUBSTANCES AND ECOLOGICAL CYCLES	70
<i>G. M. Woodwell</i>	
I WANT TO PAINT SUNLIGHT	81
<i>Jack Kroll</i>	
<i>(A Portfolio of Edward Hopper's Paintings in Colour)</i>	
SALT-WATER AGRICULTURE	93
<i>Hugo Boyko</i>	
THE AMERICAN NEGRO WRITER	102
<i>An Interview with Ralph Ellison</i>	
STUDENTS AND FREEDOM	123
<i>Richard Hofstadter</i>	
BOOK WORLD	126

THE BOWSPRIT

During the six months since *Oscar Gass* wrote "China Stands Alone," a great deal has happened both within China and in its external relations. All of these events, however, have fortified the author's melancholy conclusion that China has gone a long way towards completing its own isolation.

Economists in all parts of the world, including India, are coming to have a new respect for the automatic forces of the market in which the movement of prices allocates scarce resources among producers and scarce goods among consumers.

This changing fashion in economic thought is especially apparent in the Communist countries in which it is reflected in new policies and changing institutions.

In "Rediscovery of the Market," *Professor C. E. Lindblom* explains how prices and market forces may be made to serve central planning as well as decentralized decision making.

India, to the anthropologist, is the most richly endowed country in the world. One reason for this, as *D. D. Kosambi* makes clear, is that in India it is possible to study "Living Prehistory."

The most fascinating aspect of Political Science is the anatomy of power. The combination of elements is never the same in any two political situations. The art of politics consists of finding the right combination to fit a particular effort. In "The October Coup in Indonesia," *Donald Hindley* dissects the process by which power shifted from Sukarno to Suharto.

At the time of the death of the great American painter, Edward Hopper, in May 1967, *Jack Kroll* wrote a signed article in *Newsweek* entitled "I Want to Paint Sunlight." It was so lyrical that with slight changes we have been able to convert sections of it into a prose poem. We have also been able to bring together into one portfolio reproductions of most of the paintings mentioned in Jack Kroll's eulogy.

The interrelations of people with water, air, land, and food will—within the next half century—determine the future of humanity for a millennium. Two aspects of these relationships are discussed by *George M. Woodwell* in "Toxic Substances and Ecological Cycles," and *Hugo Boyko* in "Salt-Water Agriculture."

The shocking recent events in Newark, Detroit, and other U.S. cities with large Negro populations have disclosed new and deeply disturbing aspects of race relations in America.

Explicit in the extremists' demand for Black Power is the assertion that American Negroes are more Negro than American.

Ralph Ellison, one of America's greatest Negro writers, takes issue with this position in "The American Negro Writer."

For him, as a writer, the first commitment is to the finest expressions of literary art in the entire sweep of the world's literary history. His second identification is with the American social forces which have conditioned him and his forebears for nearly two centuries. And his third concern is with the special contributions which the Negro has made to American culture. Ellison's life as an artist has been dedicated to the integration of these aspects of his personality.

Although "Student Unrest" appears to have diminished somewhat this year, both in America and India, the root causes have by no means been eradi-

THE BOWSPRIT

cated. In a remarkable address made in California, *Richard Hofstadter* analyses the relations between students, freedom, and responsibility. His admonitions were directed towards American educators and students, but they may have applications elsewhere.

As we were considering the writing of a memorial marking the death of Carl Sandburg, we received the following letter which, coming from an Indian, seemed more fitting than anything we might write:

Sir:

The passing away of one of America's greatest poets, Carl Sandburg, is a shock to all who love beauty. We will sorely miss both the man and his moving sentiments of the American soil and skies.

Nearly fifteen years ago as a student at Allahabad University, I first read Sandburg's poems. I was so deeply impressed that I went from library to library to learn more about him.

He is unparalleled in the history of American literature. His *Chicago Poems* is a classic. In a real sense, he was the voice of the people.

I mourn his death with his admirers in America and any part of the world.

Yours truly,

Anant
594 Mahrikhawan
Basti, U.P.

—R.R.R.B.

CHINA STANDS ALONE

OSCAR GASS

IN WEALTH, MILITARY POWER, AND WORLDWIDE COMMITMENT, China today is a small country. Her people still live close to hunger. She does not have anything like the relative military capacity possessed by Japan a quarter century ago. Culturally and morally, she is turning inward. China is politically isolated. No government accords her first friendship, except the government of little Albania. No foreign Communist party stands firm to the Maoist allegiance, except the tiny party of New Zealand.

What a tragic contrast to the high expectations with which the Com-

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CHINA STANDS ALONE

munist leadership, on October 1, 1949, proclaimed the People's Republic of China!

In 1958, Chinese leaders told their people that determination, training, and a few years time was all that a Communist country required for the task of total industrialization.

But in 1959, after the "great leap forward" had failed, the same Maoist leadership found it necessary to tell its people:

That, in China, enough food to sustain life was not yet assured;

That agriculture must be put first, though a modern agriculture might still be fifty years away;

That an advanced industry, the basis for full communism, might be a century off.

No Assistance for China

In human affairs, he who says "maybe fifty years," says he does not know when. He who says "perhaps a century," says maybe never.

And the Chinese leadership now tells its people another thing not to the credit of any of the sons of man: *No country helps China.*

True, in the 1950's, the U.S.S.R. made loans to China, including loans for military supplies, totalling perhaps \$1,325 million. (This amount is less than the foreign aid which India received in the single year 1966.) Before the end of 1965, this debt had been entirely repaid. To pay, China shipped food to the U.S.S.R. even in 1960-61 when, as we now know, some of her own people starved.

And today, says the Chinese leadership, the U.S.S.R. and the U.S. join in threatening China and in plotting to invade China. The Chinese people must rely only on themselves—their own asceticism, comradeship, discipline, strength, and skill. They must retreat before the invading enemy, lure him on, absorb him, and cut him to pieces.

A Closed Society

China is again a closed society. Even before 1960, a gifted and alert engineer from Eastern Europe—a party member in his own country—could report that he had lived and worked in China for a year and not had a single significant human contact with a Chinese person. The usual travellers' books tell us nearly nothing.

Fortunately, two recent books of photographs are exceptions, and warmly to be recommended on that account.¹ Neither author, how-

ever, reports learning anything important in China from personal acquaintances.

One indeed writes:

In every other country, human contacts help. . . . This is not possible in China. . . . For the foreigner . . . direct and spontaneous communication is practically non-existent. . . . The replies . . . are usually ready-made formulas, recitals of the official viewpoint. . . . Dialogue . . . , in which the personality of those talking comes across, is almost unknown.

What cannot be learned from persons certainly cannot be learned from statistics. In 1958, Chinese statistics became propaganda. Since 1959, almost no comprehensive statistics are published. Perhaps few are collected. One of our most discriminating authorities writes, with a candour which deserves wider emulation:²

. . . because there is no reliable data, the basic dimensions of Chinese society have not been adequately measured and cannot be known. . . . China is probably the only country in modern times which has first embraced and then repudiated statistical accountability as the basis of national planning.

Hunger Ahead?

In this statistical blackout, one can only guess the total population of mainland China. My guess, for the beginning of 1967, is about 775 million, plus or minus 10 per cent. Apparently, more than two-fifths of this population is under age fifteen, and more than 80 per cent earns its livelihood principally in agriculture.

We shall probably not be greatly misled if we count that Chinese families containing over 600 million persons—fifty times as many as in the U.S.—work primarily at farming. Minimally, these Chinese families contain 250 million farm workers. On a national average, after including multiple cropping, each such farm worker harvests annually a crop area of under 1.7 acres. Since 1957, perhaps since 1955, the total national harvest is, at best, stagnant.³

By accepted convention, “grain” in China includes not only rice, wheat, and other grains but even beans and potatoes. On this basis, total “grain” production was about 185 million metric tons in 1957, and it has apparently fluctuated between 175 and 180 million since the recovery from the exceptionally bad harvests of 1960 and 1961.

The Chinese authorities purchased abroad (net) an annual average of some 4.9 million tons of grains in the years 1962-65 and perhaps 5.7 million tons in 1966. Yet Chinese grain supply for consumption in 1965-66 is estimated (by the U.S. Department of Agriculture) to have been about 16 per cent lower per capita than in 1957-58. The total present diet is estimated to supply about 85 per cent of the 2,300 calories per day calculated as the "minimum" requirement for China by the Food and Agriculture Organization of the United Nations.

Without giving full faith and credence either to such minima or to such calculations, we may recognize that this diet probably involves some malnutrition, that it comes close to hunger, and that serious crop failures would push China over to catastrophe.

Mechanization is not the remedy; in the short run China has no employment for displaced labour that would pay for the machines. Irrigation and drainage are part of the remedy, but they involve much skill, capital, and time. Chemical fertilizers also are part of the remedy, but China lacks capital to produce fertilizers or foreign exchange to import adequate supplies.

Better seed varieties might make the greatest single contribution, but such varieties have to be found, and they also characteristically require more fertilizer and water. Greater incentives to the farmer might help, but China is turning her back on that path.

In sum, the requisites for improving Chinese agriculture—whether of capital, science, skills, or incentives—are lacking. And there is no evidence that, in the past decade, China has made progress in overcoming these deficiencies.

An Industrial Dwarf

In industry, China entered the 1960's with a crisis and recession which can be compared only with the Western experience of the Great Depression of the 1930's. Having first reported a peak civilian non-agricultural employment of 56.9 million persons in 1958, the Chinese authorities also reported (in fragments) that in 1959-61 more than half were returned to agriculture. Only in December 1964 did Prime Minister Chou En-lai announce that the industrial production level of 1957 had been regained.

One may hope that by now the peaks of 1958 have also been surpassed, and that in 1967 China's aggregate industrial output will be the highest ever. But meanwhile, the population also has increased by perhaps one-fifth.

In 1966, China's workers were urged to create "Taching-type" enter-

prises—modelled after the Taching oil field—and China proudly announced basic self-sufficiency in crude petroleum; this self-sufficiency, however, was apparently at the tiny consumption level of about 200,000 barrels per day (U.S.: 12,000,000).

Indeed, China has now produced more rare things than petroleum—plutonium and even uranium 235. Yet in 1965, when China's exports regained the \$2.2-billion level of 1959, they were still less than the exports of Denmark. Moreover, China's exports are those of an undeveloped economy—agricultural products, textiles, a few specialties (tin, tungsten), and simple consumer goods.⁴

Such countries as France, West Germany, the United Kingdom, and Japan—with populations 7 per cent to 13 per cent of the Chinese—each has an industrial output between two and four times the output of China.

Each has also accomplished an industrial expansion, in the past ten years, much larger than China's. Less-developed countries—Taiwan, Greece, Israel, Mexico—also have been moving ahead much more rapidly than China.

Persuade, Be Persuaded, Or Perish

What the Communist regime has undeniably accomplished is to make China a functioning centralized state. Everything in this state is authoritatively organized—farm, factory, office, school, residence area. There is no private place. The governing hierarchy requires of everyone both conformity and active assent. Who errs will be patiently corrected. Who denies—or affirms another truth—will be reshaped or squashed.⁵

Very little about this government of China is known to those not members of its inner circle. Our best document⁶ does not come from a high echelon; it is no substitute for a set of minutes of the Politburo. But it is impossible for an alert mind to study this document without noticing one controlling feature—the drastic divergence from Stalinism.

For Stalinite authoritarianism, the sequence of public activity is first the leader's determination, then decree, order, propaganda, and obedience—or else prison, labour camp, or firing squad. For Maoist authoritarianism, the sequence is the same through propaganda, but then comes the new stage of *persuasion*—coercive persuasion it may be, but still persuasion. *One must deal patiently with the masses.*

In the end, there is no give and take, no right to dissent, to advance one's own considerations, to reason, and to finish by disagreeing. But the Maoist official must follow "the mass-line": he must not command but persuade. And all persons must be persuaded; they must either

be persuaded or die. And those who live must demonstrate their persuasion daily, actively, militantly.

Admittedly, when all is done, it is probably the Maoist authoritarianism which is the more destructive of spiritual freedom and intellectual spontaneity. Admittedly also, Stalin never exacted such servile adulation as Mao now receives. But the psyche of the society which Maoism creates is not to be identified with the psyche of Stalinism.

Conflict in the Army

To its own officers, in 1960-61, the Chinese Government acknowledged that the condition of the country was catastrophic. Many people were starving. Peasants had been in armed revolt. Simple soldiers asked for guns, to kill Communists. The militia was widely regarded as "rabid dogs, whippers, and bandits." Military officers had been guilty of extreme cruelty to starving civilians.

Nevertheless, along with these miseries, officers were invited to share large horizons. The revolution was conquering in all the world; soon it would embrace the entire continent of Africa. And, to prepare for its role in these great events, the army was instructed to rely on the trained, devoted common man, soldier or guerrilla, fighting the enemy face-to-face or at a distance of a few metres, best at night.

The army must separate itself from the error of Marshal Peng Teh-huai (Minister of Defence, dismissed in September 1959) and General Huang Ko-cheng (the army's simultaneously dismissed Chief of Staff) who had followed the "bourgeois" line of emphasizing military professionalism and advanced military equipment: "... If there is a war within three to five years, we will have to rely on hand weapons."

Late in 1965 or early in 1966, the Government of China dismissed another army Chief of Staff. The newly fallen was that very General Lo Jui-ching who had been appointed in 1959 to "rectify" the army in accord with "the thought of Mao Tse-tung." Nevertheless, he and several of his senior associates—many veterans of the Long March—were again found, in 1965-66, to be "taking the bourgeois, capitalist line."

In May 1965, General Lo had publicly espoused a military doctrine of "... pursuit to destroy the enemy at his starting point, to destroy him in his nest." And Lo had reminded his auditors that, by such pursuit, Stalin had seized the ground for the establishment of Communist states in Eastern Europe. To General Lo, as well as to scores of others of the Yen-an generation who were purged in 1965-66, their

accusers addressed the following admonition:

To devote oneself to revolution for a whole life, one must reform all one's life. Even the "old guard" officers who suffered long and hard can let non-proletarian ideas enter their heads.

Schism in the Party

The great party schism emerged suddenly. In January 1965, the National People's Congress re-elected all the old comrades (with minor exceptions). Then outsiders could still wonder at the cohesion of this senior leadership, which had stood together through three decades, with only minor exclusions of high-ranking figures in 1937-38 and 1954-55 and 1958-59. By early 1966, however, the leadership was visibly split.

The faction around Mao speaks loudest, and raises him to god-head—apparently because it could not stand were his authority once to become questionable.

Marshal Lin Piao, the Minister of Defence, now holds the highest eminence after Chairman Mao, but this eminence is apparently not acceptable to many of the Marshal's recent equals.

The opponents of the Mao-Lin leadership—some denounced, some dismissed, some arrested—obviously continue to resist. Without Mao's support, however, it seems unlikely that these opponents could come to power during his life.

Of the highest governing body, the seven-man Standing Committee of the Politburo, as it was in January 1965 (*Mao Tse-tung*, Liu Shao-chi, *Chou En-lai*, Chuh Teh, Chen Yun, *Lin Piao*, and Teng Hsiao-ping), only the three whose names are italicized remain in position at the beginning of 1967. Of the large Central Committee of the party, the majority has also, it seems, had to be dismissed or overridden.

Unleashing the Red Guards

In China's government, there was no way to proceed against such opposition by judicial process. And it was impossible to proceed against *this* opposition through the party or the ordinary executive machinery of state: the opposition controlled the apparatus of both party and government. The Red Guards were therefore created, under the sponsorship of the Ministry of Defence, to root out the counter-revolution.

These stormtroopers were sent out to administer revolutionary justice to the enemy—to "those within the party who are in authority

and are taking the capitalist road," and to "reactionary bourgeois scholar despots," and to those who favour "putting economics first, putting technique first, putting one's work first, and putting specialists first," and to "a handful of anti-party, anti-socialist, and counter-revolutionary intellectuals."

In time, the Red Guards were given names of people to fit these formulas of "Reaction." The highest enemies of socialism were the Head of State and the General Secretary of the Party, Liu Shao-chi and Teng Hsiao-ping. Comrade Peng Chen (yesterday a leading member of the Politburo and mayor of Peking) and comrade Lu Ting-yi (propaganda chief of the party since Yen-an and yesterday Minister of Culture) were, it appeared, "demons and monsters" who had long held up "a big red umbrella" to shield innumerable smaller scoundrels and counter-revolutionaries.

Mao's Personalist Coterie

The new Mao-Lin leadership includes several personalist elements. Mao's wife (utilizing the name Chiang Ching), not previously active in politics, has emerged now to give authoritative speeches and to be a cultural adviser to the army. Also from Mao's entourage, now added to the Standing Committee of the Politburo, is Chen Po-ta, formerly Mao's personal political secretary.

The other new members of the Standing Committee, Tao Chu and Kang Sheng (respectively from the regional administration in the South and the secret police), were said to reflect Marshal Lin's friendship and influence. Yet Tao was being denounced as an associate of Liu Shao-chi's "black command" before the year was out. Li Hsueh-feng, who replaced Peng Chen in June, was also already being denounced by the Mao-Lin faction in December.

Clearly, if this is a conspiracy for an inside *coup d'etat*, the Mao-Lin conspirators are short of talent and cannot count on their chosen subordinates.⁷

Through the mouth of Chiang Ching, the Mao-Lin leadership has indeed indicated (November 28, 1966) that it is not a majority or was not until it "rectified" the count. Mao's wife explained she would rather not count votes but weigh them. She reprobated talk

... about minority or majority views independent of the class viewpoint. . . . It is necessary to see who has grasped the truth of Marxism-Leninism and of Mao Tse-tung's thought, who is ready to maintain the proletarian revolutionary stand, who is genuinely

carrying out the correct line of Chairman Mao.

And six days later, Chiang Ching spoke out against the municipal authorities of Peking, whom she found—even after the disgrace of Peng Chen—“as rotten as ever.” And she added:

*They are reactionary, two-faced. They insult Chairman Mao.
They attack us. They must be wiped out, once and for all.*

Cultural Primitivism

It was this Mao-Lin leadership which set its Red Guard storm-troopers—all over China—to holding kangaroo courts, beating up “wolves in sheep’s clothing,” sacking homes, arresting whomever they were told to arrest, smashing temples, burning books, and generally doing “revolutionary justice.”

Though we hear shouts of accusation and witness the self-abasement of the accused, no one in the West has cogent evidence of the substance of this struggle. We do not know the issues. We do not know the strengths of the contenders. How much is a genuine difference of policy? How much is mere contest for power?

If the Mao-Lin leadership does put forward a distinctive skein of thought for “mass-line” indoctrination, this skein is made of self-abnegation, esteem for manual labour, a model worker-soldier, cultural primitivism, Sinicism insofar as compatible with primitivism, emphasis on non-specialization, and rejection of all social distinctions based on training and skill.

But we do not know whether a skein thus spun is unacceptable to the Liu-Teng opposition, and—if unacceptable—with what nuances of differentiation they would design its replacement. It is silly to classify one side (say Mao-Lin) as “hard-line” and the other (Liu-Teng) as “soft-line.”

If, in favouring income incentives for civilians and insignia of rank for army officers, Liu is closer to Stalin than is Mao, does this greater closeness make Liu a libertarian? Are we to forget that it was Peng Chen who, in 1951, led a public execution meeting in the Central Park of Peking, repeatedly calling upon the crowd to second him alternately in the sentences “Kill these men!” and the invocation “Hail Chairman Mao”?

In August 1966, the Central Committee announced that “. . . the situation is one of a new all-round leap forward emerging”; does this reminiscence of the 1958-59 economic lunacy delight the “hard” Chou

En-lai more than the "soft" Teng Hsiao-ping? In foreign policy generally, who is more "hard" than comrades Liu, Teng, and Peng? And which side emphasizes the importance of a capacity for frontier counterattack and offensive warfare?

A Compulsion to Suicide

"We want to liquidate entirely, by this great cultural revolution," said Chou En-lai in June 1966, at Bucharest, "all the old ideas, the entire old culture, all the old habits and customs . . . [We want] to build socialism and prevent the restoration of capitalism."

Primitivism apart, such statements tell us almost nothing. The accusers will say they are more socialist and their opponents more capitalist. The accusers will also say their opponents wished ". . . to usurp the leadership of the party, the army, and the government." But what does it mean to "usurp" in a Maoist society where there is no rule of law, no procedurally legitimate way to win the highest offices of state, and where legitimacy resides in possessing "correct thought"?

While the Red Guard proceeds with rectifying China's culture and administering revolutionary justice, the rest of the world can perhaps reasonably do little but look on, with compassion. There is, I suspect, for the immediate years, little ground for new, self-concerned fear. China is rending herself. She has not increased capacity for external aggression, and it may be that she has less mind for it.

For the present, the Mao-Lin rhetoric of daring puts its accent rather on how resolutely the foe will be repelled when *he* attacks. And today the young Mao-Lin stormtroopers are not being taught that they are the deprived sons of a people without room.

A Preventive First Strike

In any case, China is not in 1967 a considerable military power, beyond her own frontiers.⁸ Let us provisionally set aside nuclear weapons. On the Eastern and Southern rim of Asia, China makes a distant second in military capacity: the U.S. is first. On its inner Asian frontier, China again is only second: the U.S.S.R. is first.

What a Chinese military force of lightly armed, poorly supplied infantry can do, General Lin Piao demonstrated in November-December 1950, when his armies outmanoeuvred and outfought those of General MacArthur. What such an armed force *cannot* do was demonstrated in February 1951, when General Lin's "third phase" offensive was stopped dead, and in May-June 1951, when the Chinese armies

were monstrously bled by the superior firepower and mobility of General Van Fleet's forces. In the intervening years, China's relative military inferiority has become more pronounced—and further so since the 1959-60 break with the U.S.S.R.

During the next few years, China's nuclear weapons will, I think, be unequivocally "counter-productive" to China's own purposes. In war, these nuclear capabilities are still too meagre to give her equality, but they may already be sufficient to do considerable damage to a reachable opponent.

China's initiative of participation in a war, where the U.S. or the U.S.S.R. was associated with the other side, would therefore today probably be a signal for immediate destruction of her nuclear production facilities, her missile bases, her airfields, and her harbours (which might house submarine-carrying nuclear missiles).

In such a destructive strike against China, I have no reason to assume that tactical nuclear weapons would be withheld. Quite naturally therefore the possession by China of a few nuclear weapons must make her—both to the U.S. and the U.S.S.R.—the standard staff college model for the exploration of the idea of a preventive "first strike." China has become a more urgent target.

To the Wretched of the Earth

When the Chinese archives of the past decade are one day opened, it will probably be demonstrable that there was an important shift in Peking's foreign policy already during 1958-59. This was a shift towards greater international militancy and away from collaboration with the U.S.S.R. However, it is not as early as 1958-59 but rather some years later, indeed after 1962, that there seems to have emerged the truly profound breach between the two great states which profess communism.

In 1958, certainly, the Maoist leadership still held that China, like the U.S.S.R., was making spectacular economic progress. But, in the subsequent years, the Chinese leaders—or some of them—seem to have come to understand that, with respect to China's economic advance, they had been quite deluded. *Going it alone, China could go ahead, at best, only very slowly.*

Then these leaders—or some of them—seem to have broken not only with the U.S.S.R. but perhaps also with the very foundations of Marxist utopianism: they apparently broke with the conviction that communism—such communism as is attainable in this life—must rest on elimination of material scarcity. They also broke with the Russian

slogan that communism should attempt to displace other socio-political systems through competition in yielding greater material welfare.

In place of the Marxist ideology of a communism of abundance and freedom, the Maoists then began to put a radically different communism—a communism ascetic, primitivist, and puritan, a communism of prolonged equalitarian poverty and pervasive authoritarian discipline.

In these latter years (and here, perhaps, Marshal Lin's ambitions are a factor), the dominant slogan became that all Chinese should model themselves on the soldiers of the People's Liberation Army—in simplicity, in effort, in discipline, in performing all kinds of work, and in saturation with "the thought of Mao Tse-tung." To this morality, the calling of man is "not to be afraid of hardship, not to be afraid of death." Certainly by 1965-66, it was to such an equal sharing in a devoted and hard life, unmoved by material incentives, that the Maoist voice from Peking called out its invitation—to all the wretched of the earth.

Total Failure in the Third World

We shall not grasp the essence of the world politics of these present years unless we make clear to ourselves how totally this Chinese call has now failed. It has failed with the U.S.S.R., failed with the lesser Communist states, failed miserably in "the third world."

Among Communist states, only North Vietnam—always most influenced by the Chinese example—responds with some show of respect to Peking's doctrine. Even Albania reportedly now gives China obeisance without doctrinal concurrence. Elsewhere, even in those countries of Asia and Africa where Peking still has conventional diplomatic standing, the new voice of China is found absurd.

The Mao-Lin leadership now speaks for a China which is isolated morally in greater degree than at any time since communism took power.

So far as we know, China's general foreign policy objectives remain unchanged, not only since 1958-59 but even since 1949.⁹ These objectives are to affirm China's place in the world, and to do so in the context of support for the world revolution. This affirmation and support are not envisaged as manifesting themselves in one surge towards victory, but from time to time—as opportunity and strength permit.

China's natural allies are conceived to be the other faithful Communist states, the peoples of less-developed countries, and progressives in the advanced countries. China's natural enemy is correspondingly "world imperialism, led by the U.S.," or sometimes simply "U.S. im-

perialism." One may parley with the imperialist camp, and arrange truces, with the purpose of disorienting the enemy the better to divide and destroy him; but one recognizes "peaceful co-existence" as a mere shamming tactic on the road to world victory.

The essential bases for the achievement of this victory are the leadership of the party and the support of the people. The instrument is combat: "Political power comes out of the barrel of a gun." The tactic of combat is the subject of endless aphoristic wisdom: to be ingenious and daring; to train well and concentrate one's strength; above all, to fight only the engagements one wins!

The over-arching Maoist style is one of revolutionary optimism, courage, and militancy:

Our cause is the revolutionary cause, and what we most need is revolutionary optimism. . . . We ride with the wind and march forward. Let us ride with the East wind which has overpowered the West wind, ride with the wind of communism which has overthrown the Rightists. . . .

Deserted by "False Comrades"

This Maoist spirit finds itself, however, increasingly frustrated by the emergence of false comrades, modern revisionists, who have lost confidence in revolution. Deprived of this confidence, the revisionists become broken men—like Khrushchev and his successors, "outwardly tough as bulls, but inwardly cowardly as mice." They are afraid to "make revolution," afraid to make war. They are afraid that even the most just, most indispensable wars of national liberation will escalate to wide nuclear destruction.

Actually, the revisionists, according to Mao, are no better than Social Democrats, professing (in Italy, in France) to believe in a peaceful parliamentary transition to socialism and (in the U.S.S.R.) a peaceful worldwide victory of socialism through economic competition. Quite consequentially, these revisionists neglect the central duty of progressive man in this era—to engage in a militant, "tit-for-tat" struggle against U.S. imperialism, "the most ferocious enemy of all the peoples of the world."

The Mao Tse-tung leadership never had solid reasons for gratitude to the U.S.S.R. Stalin did not support this leadership before 1935, when it made its way to power within Chinese communism. Stalin did not believe it could defeat the Kuomintang; he correspondingly gave it almost no help from 1935 to 1945 and only minor, sporadic aid from

CHINA STANDS ALONE

1945 to 1949. The U.S.S.R.—whether under Stalin, Malenkov, or Khrushchev—extended to Communist China only modest assistance from 1949 to 1957.

Nevertheless, in late 1957, the two great Communist states appeared to be in fundamental accord. In November 1957, Mao is reported to have stated that every organization must have a head, and the Communist part of the Soviet Union is best fitted to be head of the international Communist movement.

The Rupture with Moscow

But this concord was transient. Some would say that by the end of 1959, surely by the end of 1960, it was quite dead. By then, the Chinese had been profoundly disappointed with Soviet unmilitancy in the Middle East (July 1958) and still more in the Taiwan straits (September-October 1958).

They had been pained to find the U.S.S.R. neutral between them and India (September 1959), seriously injured by Russia's termination of assistance to China's military development (June 1959), and greatly damaged by Soviet withdrawal from assistance to China's economic development (July 1960).

They had borne insult as well as injury. Khrushchev came to them, to Peking, fresh from Camp David, and lectured them against "testing by force the stability of the capitalist system." He separated Russians from Chinese and announced, "... We Communists of the Soviet Union consider it our sacred duty, our primary task . . . to utilize all possibilities to liquidate the cold war."

To the Chinese, this was revisionist betrayal and stupidity. Yet they allowed four years to elapse before proclaiming formal divorce; it took the Nuclear Test-Ban Treaty to bring that. Then the Chinese party stated, in an open letter (September 6, 1963):

The leadership of the Communist party of the Soviet Union has allied itself with U.S. imperialism, the Indian reactionaries, and the renegade Tito clique against socialist China and against all Marxist-Leninist parties, in open betrayal of Marxism-Leninism and proletarian internationalism. . . .

Even before the removal of Khrushchev (October 14, 1964), Sino-Soviet polemics had acquired a rigid pattern. The Russians named the Chinese rash, romantic, and "adventurist." The Chinese called the Russians timid, opportunist, and "capitulationist."

The Soviet Route Is Closed

Forswearing in that period any hope for skilful allocation of their resources, the Soviets instead counted on achieving growth through restricted consumption and massive investment. Their strategy worked because the restriction of consumption was in fact possible.

It was possible for two reasons: the standard of living was high enough to permit forced savings, and the Soviet Government was willing and able to use compulsion.

In many underdeveloped countries, neither of these conditions holds; in some, only one does. In many cases, the surplus over and above what is essential to consumption is much smaller than in the Soviet case, where development proceeded from an already advanced stage of early industrialization and food availability. And in ever more cases neither effective systems for tax administration nor other instruments of compulsion are sufficient to gather the savings that are hypothetically available.

Hence, except to the extent that capital assistance from abroad can take the place of forced savings and investment, these underdeveloped countries cannot successfully imitate the older Soviet pattern. They need to understand, as even the Soviet Union in its new condition is coming to understand, the indispensability of a judicious use of the market mechanism for efficient use of the limited resources they can command.

Selective Planning

That the non-Communist underdeveloped nations can use the market mechanism to satisfy the individual needs of consumers is, of course, clear. But what of the usefulness of the market mechanism for implementing centrally determined social priorities—to strengthen the industrial sector, for example, or to give a special push to agriculture, or to establish a steel-producing capacity?

It follows from what was said above, about the paradox of planning, that it is just this kind of precise intervention for which the market mechanism is a demonstrably effective instrument of central planning. For this kind of *planning through selective intervention*, the paradox of planning does not arise; and no special techniques need to be devised to overcome it, as do need to be devised in the Communist countries of Europe.

Hence, it turns out that the kind of “central planning” to which these underdeveloped economies are committed is the very kind for

REDISCOVERY OF THE MARKET

which the market mechanism is best suited.

That the market mechanism can be serviceable to planned and unplanned economies alike, to public and private enterprise alike, to collective and individual choice alike, is a discovery the significance of which may soon dwarf what we have seen of its consequences so far.

To say this is not to take sides in the many disputes in many countries in which, for particular purposes at hand, the question has to be settled as to how far and under what circumstances market organization ought to be pushed.

It is only to take note of the fact that, although these disputes will remain, and although different countries will choose different combinations of the market and other forms of organization of economic life, the market mechanism is now everywhere coming to be recognized as a fundamental method of economic organization which no nation can ignore and which every nation can well afford to examine freshly.

CHARLES E. LINDBLOM is *Professor of Economics at Yale University*. His latest book is *"The Intelligence of Democracy."*

LIVING PREHISTORY IN INDIA

D. D. KOSAMBI

THE BASIC TASK of the prehistorian is to learn as much as he can about the lives of the vanished people he chooses to study. Since by definition he works with evidence other than written records, he sometimes turns for illuminating parallels to living peoples who themselves have no written history.

Perhaps nowhere in the world can such parallels be found more readily than in India. For one thing, even the written material from ancient India cannot be considered history. Scarcely a single historical figure who lived before the Moslem period (beginning in the twelfth century) can be dated with any degree of accuracy, and more general accounts show little concern for facts or common sense.

Tribals as Living Prehistory

What is perhaps more to the point, there exist in India today many tribal peoples whose customs go back to preliterate times. Representing some thirty million (about 6 per cent) of India's total population of 440 million, these peoples preserve many features—in fossilized form, as it were—of Indian prehistory.

How is it that peoples whose way of life has remained largely unchanged from prehistoric times have survived in India, which has had cities and civilization since early in the third millennium B.C.? The answer lies in the availability of food.

Abundant Natural Food

In India today food shortages are all too well known, but they are a comparatively recent development; even now they are normally limited to village farmers working marginal lands and to the nation's impoverished city dwellers. In most of India nature is so kind that for

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thousands of years it has been possible for people to live with comparative ease simply by hunting and primitive food-gathering.

This is still the case in areas where overcultivation and excessive clearing of forest have not eliminated the land's natural cover. Not only are fish and game abundant but also a variety of other natural products are enough in themselves to provide a balanced diet. Fruits, nuts, berries, leafy vegetables, tubers such as the yam, mushrooms, honey—more than 100 such natural products can be gathered in season.

A large number of foodstuffs that can be stored from one season to the next grow in both wild and cultivated forms. In this category are sesamum (which provides an edible oil), emmer wheat, rice, a wide variety of beans and the sorghums and millets. Indeed, in the days of Gautama Buddha (sixth and fifth centuries B.C.) the millet *Panicum frumentaceum* was gathered wild and not cultivated at all.

This abundance of vegetable resources, supplemented by the milk and other dairy products available to the herders of cattle, sheep, and goats, means that even hunting is not really crucial to survival. One can support life reasonably well in the balmy Indian climate without killing anything.

Food-Gathering, Ahimsa, and Caste

This is a basic reality that does more than merely account for the survival of primitive tribal groups in India today: it clarifies the origins of Indian social thought. The characteristically Indian religions—such as Buddhism and Jainism—regard the taking of life as a sin. It is scarcely conceivable that such an ethic could have developed if an economy of bloodless food-gathering had not provided prehistoric Indians with an adequate livelihood.

The Iron Age people who practised plough agriculture in India were at first limited to the plain of the Ganges. From that rich region they moved southward into the Deccan: the great forested plateau of peninsular India.

This invasion was not accompanied by the violence that marked Rome's Iron Age conquest of tribal Gaul and pacification of the forests beyond the Rhine. As the advancing ploughmen from the north met the forest herders and food-gatherers of the south, the contact seems to have initiated a process of mutual acculturation. The food-gatherers learned to adjust to agriculture and the farmers not only came to rely heavily on food-gathering to supplement their diet but also brought wild foodstuffs under cultivation.

This two-sided adjustment between gatherer and producer provides

both the fabric and the pattern of India's past. It is notably reflected in today's social organization and accounts for the origin of caste and the caste system (see "The 'Untouchables' of India," by M. N. Srinivas and Andre Beteille, *Scientific American*, December 1965).

In many parts of India the names of the local tribal people are identical with those of the local agricultural castes, even though the difference in caste between tribesman and farmer prevents intermarriage and other forms of contact between them. The identity of names probably stems from an original unity, when immigrant farmers and indigenous food-gathering tribesmen at first made common cause in the forest region.

The two major characteristics of the caste system—prohibitions against marriage outside the group and against acceptance of food from the hands of a stranger—are taboos that are typical of food-gathering tribal societies. One can imagine the caste system originating as a somewhat later effort of the indigenous food-gatherers to establish themselves as being superior to the immigrant ploughmen.

Mutual Acculturation

If this is the case, one may ask why the caste of farmers is now higher than that of tribesmen. Answers are not hard to find. First, whatever their initial handicaps, the farmers, simply by practising agriculture, had a sounder economic base than the tribal people, and in India, as elsewhere, social rank corresponds closely to position on the economic scale. Second, because of their somewhat better food supply the farmers must almost from the first have multiplied faster than the tribesmen and thus would soon have outnumbered and dominated them.

Although there are caste inequalities between farmers and tribal peoples today, plentiful evidence of mutual acculturation remains, particularly in the area of religion. Many of the supposedly "Hindu" gods of the Brahman pantheon, for example, have their actual origin in tribal cults. By the same token, when tribal people abandon their aboriginal ways and take to farming for a livelihood, they abandon their ancient gods and adopt Hindu religious practices.

Much of the ritual that accompanies both the Hindu religion and the aboriginal ones seems bizarre to modern eyes. Nonetheless, to dismiss ritual as mere superstition (or worse, to follow the fad of explaining it in psychoanalytic terms) is to throw away a genuine opportunity to study both the history and the prehistory of India.

My own field work has been confined to portions of the Deccan

plateau and the adjacent west coast of peninsular India, an area in which my familiarity with local dialects and customs has made detailed investigations of tribal and village life possible.

Fertility and Fire Walking

One of the first tribal groups I had a chance to study was the Ras Phase Pardhi. These people, who now live in Maharashtra, originally came from Gujarat to the north and speak a dialect of Gujarati. The Pardhi are nomadic and are accompanied on their travels by a few scrawny cattle. The men do some casual labour and are skilled at stalking and snaring birds and other small game. The basic Pardhi occupations today, however, are begging and theft—practised by men and women alike. The Pardhi consider stealing a crime only if the victim is a fellow tribesman.

Pardhi religious ritual is a mixture of adopted and aboriginal elements. The principal object of worship is a silver plaque of modern manufacture that bears the image of a Hindu goddess. Nonetheless, the major ritual—a fertility dance—gives every sign of being genuinely ancient. The performer is a male, the head of one of the small bands into which the tribe is divided. He dresses as a woman and is not merely a priest in the ritual. In his own words, “I *am* the goddess.”

Part of the fertility ritual provides an interesting example of reciprocal acculturation between Hindu and aborigine. The dancer at one point plunges his hand into a pan of boiling oil, evidently without ill effect. This kind of ordeal is apparently an ancient Pardhi custom. At a Pardhi trial, for example, one proof of innocence is to walk a fixed number of steps while carrying a red-hot piece of iron.

The parallel Hindu ordeal—walking on hot coals—has no sanction in Brahman scripture; ordeals are not mentioned in the earliest Hindu sacred books. In fact, fire walking apparently did not become a part of Hindu ritual until about the beginning of the Christian era, when it was adopted primarily as a means of proving innocence in the face of strong evidence of guilt. One can scarcely avoid the conjecture that the Hindu ordeal was adopted from some aboriginal Indian rite such as the ones preserved today in the Pardhi dance and trial.

Castration with Microliths

Another primitive group in the Deccan—the Dhangars—are a caste rather than a tribe. Some of them are farmers; others specialize in the manufacture of woollen blankets. At least one Dhangar

family, the Holkars, took up the military life early in the eighteenth century and rose to princely status as the maharajas of Indore.

Today, the members of one Dhangar group follow tribal ways and earn a living as itinerant herdsmen. Each Dhangar band numbers about twelve people. Leading a flock of perhaps 300 sheep, the band spends the eight dry months of the year in a round of travel that rarely covers less than 200 miles and may range as far as 400 miles.

The women of the band travel the roads, moving from one pre-selected campsite to another and preparing the meals. The men herd the grazing sheep cross-country and leave them in some farmer's field at night.

The sheep's overnight droppings are valuable fertilizer for which the farmer pays either in cash or in produce. These payments, together with small earnings from the sale of wool, a few skins, and occasionally an animal, provide the livelihood of these pastoral nomads.

During the four months of the rainy season the Dhangar herdsmen move from their farmland pastures to traditional campsites on the plains that are dry enough to keep the sheep safe from the hoof rot they contract on muddy ground.

At these rainy-season camps are sheep pens, solidly constructed of drystone masonry, that must have been built in prehistoric times. Some of the richest deposits of prehistoric stone tools I have found in India are close to Dhangar rainy-season camps. The same is true of many rock engravings that also appear to be prehistoric.

The stone tools are the tiny blades called microliths. It is a curious fact that although the Dhangars do not recognize the microliths as tools when they see them, they make and use similar tools themselves.

When a lamb is to be castrated, a Dhangar shepherd takes a nodule of chalcedony and shatters it, using two other rocks as hammer and anvil. He then selects a sharp flake of chalcedony to use as a castration knife. After the stone flake is used it is ritually boiled together with the lamb's testicles and thrown away.

The Digging Stick and the Plough

One of the traditional rituals in the Maharashtra region of the Deccan—the great pilgrimage to Pandharpur—may have originated in the days when everyone's life involved the kind of seasonal wandering that is still the way of the Dhangar shepherds.

At the very least, the pilgrimage is out of keeping with a settled agricultural way of life. The journey to Pandharpur can take as long as three or four months and traditionally begins at the start of the rainy

season. That such a custom could have arisen in a farming society seems improbable; the rainy months are the ones during which the farmer does the larger part of his productive work.

Other seemingly illogical mixtures of old ways and new are common in peninsular India. One example I have observed combines the plough technology of later times with a much earlier form of agriculture—the “slash-and-burn” method, in which farmland is created by cutting down and burning the natural vegetation.

When the farmers of Maharashtra grow millet today, they clear hill-sides by the slash-and-burn technique and plant the crop with the aid of primitive digging sticks. In the level valley fields where wheat and rice are raised, however, the same farmers plough and fertilize by modern methods.

Hook-Swinging

The most spectacular example of fossilized ritual I have encountered is *bagad*, or “hook-swinging.” Both the law and public opinion discourage this practice in India today, but hook-swinging posts are still to be found near many temples throughout the Deccan.

According to historical accounts, the ritual required that a pair of sharp metal hooks be thrust into a selected victim’s back, penetrating the flesh just above the hips. The hooked man was then hoisted clear of the ground and left to swing, painfully suspended only by the two hooks. This gruesome rite was conducted on one special day each year.

Foreign observers could discover no particular reason for it and rather too willingly attributed it to the savagery of the people who practised it. None of these people had told them that to be hook-swung was a signal honour and a prerogative jealously guarded by a very few of the oldest farming families in each district.

Today, hooks are still set in living flesh each year in a few remote villages. I was recently able to witness such a ceremony. I must preserve the anonymity of both the village and the participants in the ritual, but I can say that it took place at the time of the April full moon.

In this village the man to be swung must be selected from among the young married men of clan X, in spite of the fact that the village headman, the leading village families, and all the richest farmers are members of clan Y. This privilege stems from the fact that the earliest immigrants in the area were members of clan X, and that it was they who first heard the call of the god Mhatoba, in whose honour the ritual takes place.

In this village the two swinging posts are set up in a cart that is

used only on this one day of the year. Nowadays the celebrant's weight is no longer borne by the hooks throughout the ceremony. Between swings he sits more or less comfortably astride a bar suspended from a crossbeam that is balanced between the two uprights.

A new crossbeam is ceremonially cut each year in a jungle some forty miles from the village; this jungle is said to be the place from which clan *X* originally migrated. Relays of specially chosen villagers carry the beam back to the village. They are permitted to put down their burden and rest only at specific points along the way.

Selecting the Celebrant

At the outset of the hook-swinging ceremony candidates for the honour gather with a group of electors under a specific tree outside the village. After the celebrant has been chosen, the electors and the candidates return to the village, running through a sacred course in groups of three. The man in the middle of each trio is a member of clan *X*; he is flanked by men of clan *Y*. The celebrant and his two escorts are the last to run the course.

When they have done so, the celebrant is led to the local temple. There he is ritually bathed, declared *deva* (temporarily divine), and dressed in a special costume (a red turban and red silk trousers) that leaves him naked from the waist up.

The celebrant now goes to the site of the village's annual *holi* (spring festival) bonfire. He stands on the fire's ashes as the village carpenter thrusts the two steel hooks into the small of his back. Every man in the village crowds around to watch the operation.

Procession and Sacrifice

The celebrant is then decked with garlands and led to a nearby field. There the *bagad* cart, drawn by a pair of bullocks, is waiting. A rope that is attached to each hook is looped behind the celebrant's back and tied to the crossbeam, which rests on the two *bagad* uprights. The celebrant individually blesses each child born since the last hook-swinging; when this has been done, he makes his first swing suspended by the hooks. A cheer goes up, the god-elect nimbly climbs astride his resting bar and the cart jolts off across the fields.

At prescribed points along the route the cart stops and the celebrant descends from the bar to make a predetermined number of swings. After all the village's fields have been blessed in this manner, the procession continues through the fields of a neighbouring village to the

place where the god Mhatoba's temple stands. The people have gathered from miles around. A number of goats are now sacrificed, the order of their slaughter being established by the rank of the clan offering the sacrifice.

When the sacrifices are over, the hook ropes are untied from the *bagad* beam and the god-elect climbs down from his bar. He enters the temple, the hooks are removed, and his wounds are anointed with ashes from Mhatoba's sacred fire. Once this is done the god-elect reverts to human status.

During the ceremony I observed, the celebrant was in a state of exaltation and showed no trace of pain. Although he received no medical treatment other than the application of wood ash, two weeks later the marks on his back were scarcely visible.

Origins

When I asked about this village tradition, I was told that the form of the hook-swinging ceremony had originally been quite different. In the "good old days," my informants said, the god-elect from clan *X* was killed at the end of the procession, along with another god-elect annually chosen from the low-caste clan *Z*. The two men were beheaded, their heads were set on stone slabs that are still in place in front of Mhatoba's temple, and Mhatoba's ceremonial palanquin was paraded over the grisly offerings.

I was told that the original practice had been continued until only one male member of clan *Z* remained alive. At that point, it was said, Mhatoba himself appeared and declared that life need no longer be taken. It would suffice, he said, if on the sacred day the elected representative of clan *Z* had his thigh ceremonially cut and the representative of clan *X* was hooked and swung.

In fact, my informants told me, the thigh-cutting ritual is still followed each year within the temple. The representative of clan *Z* has his thigh cut at the same time the hook-swinger descends from his cart. Like the hook-swinger's wounds, the clan *Z* celebrant's wound is anointed with ashes from Mhatoba's sacred fire.

What are the prehistoric elements in this bizarre tangle of ritual and tradition? For that matter, how much of the supposed tradition is actually credible?

Human Sacrifice

As a start, I see no reason to doubt that human sacrifices really

took place in the "good old days." Although human sacrifice was eliminated from formal Hindu ritual before the sixth century B.C., the custom continued in many parts of India until recently. To judge by today's police record of ritual murders, human sacrifice is still practised among a number of tribal peoples.

As recently as the 1780's the Brahman rulers of Poona, wishing to ensure the impregnability of Lohagad Fort, saw to it that a young married couple was buried alive under the fort's foundations. An unmarried man was similarly sacrificed by the Moslem builders of Chakan Fort; a cult in his honour survives to this day.

Not all the victims of human sacrifice went unwillingly to their death. Evidence is provided by the barber caste of Kurkumbh, which is proud to hold first place in worship at the shrine of the goddess Phirangai. The barbers' priority is traditionally based on a feat performed by a member of the caste who had been given the task of escorting the goddess to Kurkumbh from her former residence some 200 miles away.

The goddess agreed to make the move, with the usual kind of fairy-tale provision that she would travel no farther than the first place at which her escort turned his head and looked behind him. The barber resisted temptation all the way, staring fixedly before him until he reached Kurkumbh. On his triumphant arrival he volunteered on the spot to make a sacrifice of his unturned head.

Mhatoba's Two Places of Origin

Assuming that the account of Mhatoba's original bloody rites is authentic, how are these rites related to the prehistory of peninsular India? An answer to this question requires an examination of the deity's history. Mhatoba is a god to whom tradition assigns two distinct places of origin.

One is the jungle, forty miles from the hook-swingers' village, in which his worshippers procure the *bagad* crossbeam each year. Here Mhatoba has a temple, which stands on a hillock. At the base of the hill I have found a fair number of crude microliths. The presence of these stone tools is good evidence that the area supported a prehistoric population. At this place of worship Mhatoba is called Bapuji-Baba, or "Father-God," and it is dangerous for any woman to approach him.

Mhatoba's other place of origin is also about forty miles distance from the hook-swingers' village but in a different direction. The site is unmarked, but tradition states that at this place the deity first appeared and immediately made his presence known by kidnapping seven virgin sisters.

Mhatoba thereupon travelled cross-country to the vicinity of the hook-swingers' village, where he paused by a pool in the river. There, for no known reason, he drowned all seven sisters. When a passing member of the Koli tribe ventured to criticize Mhatoba's behaviour, the god drowned him as well.

Near the pool today there is a shrine to the seven sisters and the unfortunate Koli. The pool itself is considered cursed. No one bathes there, nor is its water used for farm animals. Within the shrine the crude representations of the seven sisters are coated with red lead, which is commonly used by Indian villagers as a substitute for the blood of sacrificial animals. I have found surface deposits of microliths nearby, as I did at the temple where Mhatoba is known as Bapuji-Baba.

In spite of his murder of the kidnapped maidens, Mhatoba is known in one aspect as a "married" god. Next to his statue in the hook-swingers' temple stands a statue of a goddess named Jogubai. The hilltop Mhatoba, with his reputation for being dangerous to women, has no such consort.

The Meaning of Mhatoba

Why should the god be single in one aspect and married in the other? To find the answer I undertook a survey of all the district's temples. I quickly learned that the goddess Jogubai, like Mhatoba, was worshipped in several places, although there was no tradition that she had come to the district from some other region.

I also encountered several more Mhatobas. In many places Mhatoba and Jogubai were "married," as they are at the hook-swingers' temple. In other places, however, either the god or the goddess was worshipped alone, and the worshippers knew nothing about Mhatoba or Jogubai being "married" elsewhere.

It is my belief that Mhatoba and Jogubai are a pair of deities who originally belonged to two different population groups and quite probably to different eras of prehistory as well. As I interpret the evidence, Mhatoba was at first an aggressively male god of the kind who was worshipped by the Gavalis, a late wave of pastoral invaders who entered the Deccan from northern India.

These people herded cattle but did not use the plough. They reached Raichur in the middle of the Deccan plateau by about 2000 B.C.; recently obtained carbon-14 dates indicate that they were still practising their pastoral way of life as late as 1000 B.C.

The preceding wave of pastoral invaders from the north herded sheep and goats; therefore the skins they used for various purposes

were the comparatively thin sheepskin and goatskin. The Gavalis had to work with thick cattle hides, and accordingly their microlithic tools were somewhat heavier and coarser. This difference is evident in the microliths found near the Bapuji-Baba temple.

Jogubai, on the other hand, is the kind of mother-goddess I associate with the earliest inhabitants of the Deccan: the primitive food-gatherers. These are the same people who with enormous effort erected all over peninsular India hundreds of megalithic monuments consisting of large piles of boulders. After they had piled the boulders together, they also marked them with deep grooves.

It is an interesting coincidence that wherever a modern cult is associated with one of these ancient megalithic monuments it is almost without exception a mother-goddess cult.

Mother-Goddess Sometimes Married Father-God

If it is correct to assume that the mother-goddess was first in the area and that the father-god was a pastoralist intruder, how do the traditions of the hook-swingers' village fit such a sequence? In their temple, goddess and god are joined in "marriage"; I take this to be symbolic of a situation in which conflict between food-gatherer and pastoralist was resolved by peaceful fusion.

The virgins drowned by Mhatoba might represent a sacred college of priestesses dedicated to the worship of the mother-goddess. The fact that Mhatoba is now married to Jogubai shows that even the destruction of her priestesses was not enough to suppress her worship.

The conflict between mother-goddess and father-god could not have been resolved peaceably everywhere. Throughout Indian theological art, from the earliest representation of a horned "proto-Shiva" on Harappan seals of the third millennium B.C. to gaudy pictures sold in Indian bazaars today, runs a theme of conflict between a female deity and a "buffalo demon," in which the goddess is the victor. In Kalighat paintings, for example, Shiva's wife Parvati tramples him. The goddess Durga-Parvati is called "she who tramples the buffalo demon."

In this connection Jogubai appears in another temple in the district not in the role of consort to Mhatoba but as consort to the more primitive male deity Maskoba, who is recognized as the counterpart of the buffalo demon. Just as the union of Jogubai and Mhatoba in the hook-swingers' temple can be taken to symbolize conflict resolved, so perhaps this marriage to the buffalo demon symbolizes conflict perpetuated.

Two Societies in Fusion and Conflict

This much is certain: The prehistoric fusion of two distinctly different societies has left marks that remain to this day. Indeed, in some parts of the countryside both the buffalo demon and the goddess who tramples him are worshipped by the same believers but in separate shrines. Two points, however, should be made clear.

First, although instances of goddess-worship are still to be found all over India, there is no reason to believe the country's prehistoric food-gatherers were worshippers of a universal mother-goddess. To attribute any universal custom to primitive and segregated peoples is obviously hazardous.

Second, it is important to emphasize that even when some ancient monument is found to be a centre of goddess-worship today, there is little possibility that the modern cult represents a survival from prehistory. The early food-gatherers had no fixed abode and the early pastoralists were constantly on the move; accordingly, any continuity of worship at a single site is implausible.

Nonetheless, coincidence can sometimes achieve what piety cannot. At the village of Theur the goddess of child-birth is worshipped at a megalithic monument that stands on the summit of a prehistoric mound. This goddess—Satvai, or "Mother Sixth"—takes her name from the fact that sacrifices are made to her on the sixth day after the birth of a child.

The boulders that compose the monument at Theur are of a stone so hard that it will turn the edge of a modern mason's chisel. Yet every one of them bears smooth grooves with a semicircular cross section, some over an inch in depth, that were evidently produced by patient rubbing in prehistoric times. Prominent among the grooved designs is a representation of a cowrie shell, the traditional symbol of the female.

It appears certain that the deity worshipped at the Theur mound thousands of years ago was a goddess, just as the deity is today. Here, with the Pardhi snarers, the Dhangar shepherds, and the hook-swinging devotees of Mhatoba, is further evidence that the prehistory of India is still alive.

D. D. KOSAMBI, who died as his article was being prepared for publication in "Scientific American," was a mathematician and historian. Educated in India and at Harvard University, he began a career in mathematics. His writings include two historical books: "An Introduction to the Study of Indian History" and "The Culture and Civilisation of Ancient India in Historical Outline."

THE OCTOBER COUP IN INDONESIA

DONALD HINDLEY

PRIOR TO OCTOBER 1, 1965, the leaders of the Indonesian Communist Party (PKI) controlled the largest Communist organization in any non-Communist state. The Party itself, with some three million members, was the centre of a web of mass organizations claiming fifteen million members and seeking to mobilize specific segments of the population: workers, peasants, youth, women, students, cultural workers, university teachers, and even village officials.

D. N. Aidit, M. H. Lukman, and Njoto, the triumvirate that had led the Party since January 1951, were honoured by President Sukarno at home and by the major Communist parties abroad. A Djakarta-Peking axis was the base of a vociferous confrontation against the West, and Communist youths spearheaded government - sponsored demonstrations against "neo - colonial" establishments within the country.

Meanwhile, several non-Communist politicians and military officers appeared to be plotting their own opening to the left in preparation for a Communist takeover.

Today, the situation is radically different. The massive PKI organization has been rapidly and bloodily dismantled. Among the 300,000 to

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THE COUP IN INDONESIA

500,000 dead are Aidit, Lukman, and Njoto along with, apparently, a large percentage of the lesser cadres. Many former Party activists are imprisoned, their ranks continually thinned by further killings.

In March 1966 the PKI and its mass organizations were formally banned, and in July the People's Consultative Congress proposed the prohibition of the teaching of Marxism-Leninism.

Communists and those suspected of Communist sympathies have been purged from government ministries, state enterprises, and the many semi-representative councils that proliferated under Guided Democracy. Most government ministers who before the coup attempt had shown a tendency to move close to the PKI, such as former Foreign Minister-First Deputy Prime Minister Subandrio, have been replaced. Several have been put in "protective custody."

And President Sukarno, the PKI's chief protector in the past, has been relegated to a minor political role, at least for the present.

The Sources of Power

The ease with which the central army command and its allies broke the PKI should give rise to a re-examination of political power and the sources of power in Indonesia, the more so as not only some Indonesians but also several Western observers believed a PKI victory to be imminent.

The sources of power that political actors may call upon differ from one political system to another and, to a degree, between states having a similar political system. Indonesia underwent a drastic change in its political system between late 1956 and July 1959, from a variation of parliamentary democracy to what was called Guided Democracy.

The objective of this essay is to explain why the army was able to decimate the PKI so readily, and why the PKI did not fight back. This objective is pursued through an examination of the major sources of power available to the chief political actors under, first, parliamentary democracy and, then, Guided Democracy, and of the power alignment that followed immediately upon the October coup attempt.

The Parliamentary Democracy

From very shortly after the declaration of independence in August 1945, the great majority of Indonesian political leaders were at least publicly dedicated to the creation of a parliamentary democracy; that is, the composition and policies of the government were to be determined by the members of parliament, and the composition of parlia-

ment was to reflect the numerical balance of political interests in the country.

Until the general elections of September 1955, the members of parliament were appointed: most as representatives of political groupings that took part in the military phase of the revolution from 1945 to 1949, and part as the representatives of the Dutch semi-puppet federal states that were merged into the unitary republic between late 1949 and August 1950. Then, in 1955, parliament was elected on a system of proportional representation which reflected accurately the number of votes obtained by the various political parties.

It would be hazardous to generalize about political power during the lengthy period of parliamentary democracy prior to late 1956. In order to demonstrate the contrast with the later period of Guided Democracy, I shall therefore concentrate on the period around the elections of September 1955, the only parliamentary elections so far held in Indonesia.

During the period of "purest" parliamentary democracy, power was largely the ability to mobilize voters in order to win seats in parliament, for it was the parliamentarians who were dominant in determining the composition and policies of the government.

The Major Parties

Four major parties emerged from the elections: the PNI (secular nationalist), Masjumi (Moslem), the Nahdatul Ulama (NU, Moslem), and the PKI. Each had access to considerable funds or patronage: from control over the personnel in government employ, from the misappropriation of government funds, from the "national businessmen" who had been placed in lucrative positions by pre-election governments often with the express purpose of creating wealth for party coffers, from the resident Chinese business community, from small donations, and, it was widely rumoured, from foreign Communist states.

Such financial power was used to build a system of paid party workers around the election period, to ensure the voluntary labour contributions of those owing employment or other privileges to government leaders, and to make the party visible to a wide section of the electorate. Each major party had an extensive organizational network which was, however, only in part the product of financial assets.

Masjumi and NU depended largely upon the Moslem religious teachers (*kiajis*) to bring the devout to the polls, while the PNI used the government bureaucracy down through the rural civil service (*pamong pradjja*) to the village headmen to persuade the non-devout but tradi-

tional population to vote as required. Only the PKI was forced to build painstakingly an organization that was not basically reliant on existing traditional authorities—and was greatly facilitated in this task by the failure of any other party to attempt the same.

Once the non-Communist parties had attained financial and/or patronage resources and had developed a wide, if loose, organizational network, the votes came in almost automatically from major socio-cultural groupings in the electorate.

The NU, as the representative of orthodox Islam, gained the votes of the orthodox Moslems; Masjumi drew most of the remaining Moslem voters. Non-devout or nominal Moslems voted for the PNI because it was opposed to theocratic rule and either because they were government employees or businessmen dependent upon the party for patronage, or because they were following the leadership of traditional but non-devout rural authorities.

The PKI alone had to seek voters through the formulation of programmes designed to arouse and fulfil the aspirations of major socio-economic groupings—that is, to persuade the poorer sections of the tradition-oriented population that their basic interests were distinct from those of the traditional religious and secular authorities and could not be met by continued traditional loyalties.

To summarize: political power under parliamentary democracy, and especially around the period of the elections, was closely related to ability to mobilize voters. And it was the PKI which was successfully eroding the sources of power of the other parties, most notably the PNI, by taking advantage of and at the same time working to hasten the decay of traditional loyalties and attitudes.

It appeared from the 1957 local elections in Java and several provinces in the Outer Islands that the PKI might eventually obtain even a majority of total votes: the 40 per cent or so of devout Moslem votes were still being cast for Masjumi and the NU, but the PNI's vote was crumbling before the effects of detraditionalization and the organizational and propaganda skills of the PKI.

Sukarno's Power

As in any parliamentary democracy, Indonesia possessed extra-parliamentary forces with considerable political power. While organizations, such as the trade unions, veterans' organizations, business associations, bureaucratic associations, and even peasant groups, were largely creatures of the political parties, President Sukarno and the army officer corps were major autonomous political entities.

Sukarno's power was the product of the application of his personality and political skills in a particular environment. Sukarno possesses high intelligence, a magnetic personality, and deep conviction that he is destined to lead his nation.

His political skills are numerous, at times awesome. He is a moving orator who combines various appeals to the major segments of the population—frequent reference to Allah, allusions to Javanese history and heroes, quotations from Jefferson balanced by others from Lenin, loving concern for the *marhaen* (the common people), emotional nationalism that emphasizes the greatness and potential of Indonesia, political concepts couched in terms of the traditional values of village life: Islam and secularism, modernity and tradition, democracy and leadership, nationalism and a world crusade against imperialism-colonialism, pride in history and pride in the future.

Sukarno: Old and New

In his effort to become the symbol of the Indonesian nation, Sukarno united elements of traditional and modern leadership, though this was to become more apparent in the post-parliamentary period. As a grand sultan, he inhabited numerous luxurious palaces, appeared in the company of large entourages, notoriously enjoyed the favours of countless women, built a mosque on the grounds of the Djakarta palace, and entertained or was entertained by the potentates of foreign states. As a modern leader he urged the welding of a nation out of the disparate peoples of the archipelago, the creation of a "just and prosperous" society, and a crusade against the imperialists.

Apart from his skills at symbol creation and manipulation, Sukarno was, and is, unrivalled at political manoeuvre and intrigue. He played party against party, factions within parties, military service against military service, and individual officers and cliques against others.

Sukarno's character, intelligence, and political skills only begin to explain how he was able to acquire significant political power under the parliamentary regime even though he was not affiliated with any political party or mass movement. The remainder of the explanation lies in his position as of August 1945, when independence was declared, and in characteristics of the general political environment between 1945 and 1956.

In August 1945 Sukarno was already the foremost figure in Indonesian nationalism. He was the most eminent graduate of Dutch political confinement; he was also, in part, the creation of the Japanese. The Japanese had given him the freest rein of any nationalist, first to

persuade the Indonesians to aid the war effort, and then, as the war turned against Japan, to arouse Indonesian nationalism as a weapon against an anticipated Allied invasion.

Sukarno: Divide and Rule

Three major characteristics of the period of parliamentary democracy were to enable him, as an individual without his own organization, to maintain and increase his personal authority.

First, both the civilian and military leaders were deeply divided and warring among themselves, which provided Sukarno with the opportunity to use the divisions for his own benefit.¹ Not only were there basic inter-party rivalries, but each party, with the exception of the PKI after 1950, was divided into rival factions; the officer corps was likewise deeply disunited.

Second, many political leaders seemed to lack confidence in their own ability to govern. This was no doubt largely the result of the multi-party situation and factional disputes within the parties; it may also have been in part the result of their inexperience with governing (due to Dutch colonial policy) as well as the overwhelming problems that faced the new state.

Third, a large part of the Indonesian population could not conceive of itself as participating in the determination of policies; it looked to the government for paternal leadership; and it expected the leader to have the behaviour and appearance of a largely traditional nature.

Sukarno used his skills to exploit, widen, and increase the divisions within the political parties and the officer corps; he grasped opportunities with boundless self-confidence; and he filled a widely felt need for a monarch-like and paternal leader of the people.

The Officer Corps

The officer corps, too, was an important extra-parliamentary political force.² Its power depended upon its ability to command the disciplined loyalty of its men. During the period of parliamentary democracy, the officers were unable to exert a dominant or even major influence on government policies for the simple reason that the officer corps was divided within itself, with some factions and individuals loosely allied with political forces outside the military.

No officer or group of officers could rely on the active loyalty of sufficient numbers of other officers and men to give them the confidence to intervene significantly in national politics. The only attempt to seize

far-reaching influence failed in the "October 17 Affair" of 1952. Otherwise, the officers could agree only on limiting civilian interference in military affairs.

In brief, the general outline of power under parliamentary democracy was as follows: party leaders as the main holders of power, that power dependent in large part in their ability to muster votes and hence representation in the parliament which played the major role in deciding government composition and policies; the military leaders holding an important source of power, which was dissipated by internal divisions; and Sukarno as an individual exercising power on the basis of his intelligence, skills, and personality employed to exploit the particular Indonesian political environment.

Guided Democracy

Between late 1956 and 1960 the parliamentary system was swept aside, to be replaced by what was called Guided Democracy. For a system to survive it must receive acceptance from the masses or the political elite, and/or it must possess the means to control forces wishing to replace it. Acceptance might be either automatic-traditional or conscious, or a combination of the two.

In Indonesia, parliamentary democracy was a new creation; acceptance could not be automatic-traditional. Nor could the performance of the system produce conscious acceptance by any but the small number of politicians and their proteges who were benefiting personally: the governments were not only corrupt, but were quite ineffective in resolving the urgent economic, social, and political problems that faced the new state. Further, the system had produced a large and growing Communist party which persuaded civilian and military leaders to seek, or be prepared to accept, a new system that could contain this development.

As disillusionment with parliamentary democracy became general, the system's leaders were themselves demoralized, not least because they were unable to control those armed forces that would be necessary to suppress or intimidate opposition. The armed forces were opposed to the system, and could count on President Sukarno's agreement since he was dissatisfied with his own role within it.

A Limited Dictatorship

Guided Democracy was a euphemism for a presidential form of limited dictatorship. The elected parliament was replaced by a fully

appointed one; the government was nominated by Sukarno, who himself became Prime Minister. General elections were indefinitely postponed. Several parties, including Masjumi and the Socialist Party (PSI), were dissolved by the President because they rejected his guidance.

Under Guided Democracy the ability to mobilize voters or parliamentarians was no longer a source of political power—as the quiet demise of Masjumi readily demonstrated. Power was now the product of three distinct capabilities.

Power under Guided Democracy

The first was the ability (or the appearance of the ability) to command the militant support of a significant number of people; that is, the ability to call a larger number of people to take such actions as armed struggle, strikes (especially in the more vital economic areas, as transportation), sabotage, and control of the bureaucracy.

The second was the ability to manipulate competing forces and to intrigue within political forces in order to increase one's own relative power.

The third was the ability to influence those who possessed either the first or second capability. Such influence could be gained by personal friendship, by established loyalty, or by the possession of skills that others considered useful—political, economic, diplomatic, organizational, bureaucratic, and so on.

In short, power under Guided Democracy was the product of the ability to call upon militant action, to play off or weaken by intrigue those political actors who could call upon militant action, and to influence those with either or both of the first two abilities.

Before examining the major political actors of Guided Democracy and their bases of power, three relevant observations must be made.

First, the capabilities which produce power vary depending upon circumstances; for example, the ability to manipulate and intrigue depends in large part on a multi-actor situation in which no one actor feels strong enough to eliminate his competitors. Those without independent power bases but who acquire power through influence must retain powerful patrons or face political oblivion; political leaders may be able to call upon the militant action of a considerable number of supporters only under certain circumstances, being unable to do so under others.

Second, political actors do not necessarily maximize the political use of their real power, that is, they do not necessarily employ their full power capability to influence or control government policies.

Third, until a crisis occurs in which militant action is actually used, each political actor may be uncertain as to the relative power available to himself and to the other actors—which gives scope for bluff under non-crisis situations, and miscalculation both then and in a crisis.

Three Groups of Actors: Sukarno

From 1959 to October 1965 three main political actors or groups of actors wielded significant power as a result of autonomous (or apparently autonomous) bases of power: President-Prime Minister Sukarno, the central army leadership, and the PKI. Several individuals possessed a certain degree of power because they could influence one or more of these three.

President Sukarno was the linchpin of the system. His power, as in the earlier period, was derived from several sources. It was generally believed among the political elite that he could command the personal loyalty, and perhaps (even probably) the militant loyalty of vital sectors of the population, ranging from the bureaucracy, important elements in the officer corps, and many political party leaders to workers, peasants, and the masses in general.

There was the belief that any attempt to oust him would lead to at least a major civil war, with the outcome likely in favour of Sukarno; while assassination would lead to a civil war of unknown outcome between the other political forces.

Sukarno constantly reiterated that he alone was capable of holding the disparate political forces together in peace if not in harmony.

By intrigue within the political parties, most notably the PNI and NU, and within the armed forces he sought to make the party and army leaders unsure of the extent of militant support they could command. By a subtle policy of domestication he sought to prevent the PKI leaders from developing the militant and exclusive loyalty of their supporters. And by manipulation of the various political forces, he sought to prevent any one of them from developing a position which could permit it to seize control of the government.

He also sought to provide sufficient rewards to the other major political forces to bind them to the system: the army officers were given enormous budget outlays and positions in the cabinet, regional government, and state enterprises; the PKI leaders gained cabinet posts, public praise from the President, a virulent anti-Western and pro-Chinese foreign policy, the liquidation of Masjumi and PSI, large representation in the appointed parliament and provincial, *kabupaten*, and city councils, and protection from army oppression; leaders of the PNI, NU,

THE COUP IN INDONESIA

and lesser parties received positions that provided material and status satisfaction.

The Army

The central army command of 1965 was far stronger than that of a decade earlier. Its control of the army was far more firm: Nasution, appointed Chief-of-Staff in 1955, had had ten years to consolidate control, and the relatively easy defeat of the 1958 PRRI-Permesta rebellion had increased his prestige as well as eliminated much of the regional insubordination that had preceded it.

Further, the campaign to liberate West Irian had netted the armed forces over \$1 billion of Soviet military equipment as well as over 80 per cent of the 1962 state budget. By 1965 the army consisted of over 300,000 troops. The far smaller air force and navy were suffering from disputes within their officer corps. The police were armed but were not acting as an independent political force, though their reaction in a relatively evenly balanced crisis could have been decisive.

The power of the central army command rested firmly on its control of disciplined, armed men, some 60,000 of whom were located close to Djakarta. The officer corps as a group had always been concerned with politics because the army itself was a creation of the war of independence against the Dutch. Men had entered the army because of their concern for the fate of Indonesia, and the results of parliamentary democracy had instilled no loyalty to civilian rule.

But before October 1965, the central army command did not attempt to gain sole control of the government, or full control of government policy, for a variety of reasons. Two were perhaps the most important: the pre-1959 divisions within the officer corps, combined with Sukarno's continuous exploitation of them, meant that Nasution and his successor as army chief, Achmad Yani, were not sure which of their officers would be loyal in a confrontation with Sukarno; and, as we have seen, the officer corps was well provided for under Guided Democracy so that it preferred the enjoyment of privilege without full governmental control to the uncertain fate of an attempt to seize control in its own name.

The Communists

The power of the PKI leadership lay in its mass support and its influence upon Sukarno. Beginning in 1951, Aidit and his colleagues had built a party of over three million members; party branches were

established in virtually every village in Java as well as in many regions of the Outer Islands. Mass organizations claimed a further fifteen million or so members among peasants, youth, workers, and other sections of the population.

Communist trade unions dominated in the harbours, plantations, factories, oil fields, transportation (including the railroads), and electricity and gas, with a numerous membership, too, among civil aviation and telegraph and telephone workers. Sukarno considered an alliance with this network to be imperative in his competitive coalition with the army.

He and the army leaders appeared to have believed that should the army attempt to remove the President, then the Communists would react militantly in his support. The dual loyalties of the Communists to the Party and to the President were thought to be sufficiently strong, when united, to elicit such militant action if a crisis developed along the lines of the army versus Sukarno.

Many observers, Indonesian and foreign, were uncertain as to the ability of the PKI leaders to call upon the militant action of their followers if the Party were in isolation against both the President and the army.

Several individuals or groups exercised a certain influence on policy through their contacts with either Sukarno or the central army command. Members of the dissolved Masjumi and PSI retained circuitous contact with certain leading officers, and the Socialists in particular may have alerted officers to the tactics and danger of the PKI. Individuals such as Subandrio, Djuanda, Chairul Saleh, Leimena, and a few NU leaders had some influence on Sukarno. But lacking their own independent control of militant action, this influence was slight, and they were of even less significance once a crisis erupted.

The Coup: Why?

In the early hours of October 1, 1965, several leaders of the central army command were murdered. By October 2, the survivors were in full control, and eager to use the opportunity to decimate the PKI. They have succeeded. Sukarno, whose complicity in the coup attempt is debated but uncertain, has been relegated to a minor role.

That this profound change in the Indonesian political situation could be effected so easily may be understood if the power situation is examined.

Guided Democracy was a temporary arrangement if only because Sukarno is in his sixties, ailing and mortal. The other political forces

were quite aware that upon his demise, at the latest, they would have to fight for survival, with the loser being very probably obliterated.

While Sukarno lived, the army feared to attempt to replace him, for reasons outlined above. The PKI leaders, unsure of the nature of their own support, preferred to retain their alliance with the President while they expanded their organization and, presumably, attempted to increase what little support they had in the armed forces. During 1965, however, four developments made a showdown likely before Sukarno's physical disappearance.

Firstly, Sukarno's health was believed to have deteriorated, and each of the two main contenders for succession sought an opportunity to strike the first blow at the other.

Secondly, it was rumoured that perhaps the history-conscious Sukarno was preparing a Communist succession as only the Communists were likely to exalt his memory. Certainly he gave approval to the PKI request for a people's militia, which, if implemented, would have gravely weakened the army relative to the Communists.

Thirdly, during 1965 the PKI showed increasing militancy in demonstrations and other forms of popular pressure not only against the "neo-imperialists" but also the government.

And fourthly, some prominent civilians, of whom Subandrio was the most notable, were beginning to seek Communist support in order to protect their positions against an uncertain future.

The Army Reaction

While it is still unknown if the PKI was directly involved in the October coup attempt, the coup and its failure gave the army command the opportunity to strike at the Party on terms most favourable to itself. Naked force, or militant action, had been employed against the central army command with the approval of *Harian Rakjat*, the Communist newspaper; the army would now use naked force against the Communists.

The army, threatened or believing itself threatened by the PKI, acted with great unanimity. Troops were moved rapidly against the few military rebels in Central Java, who either surrendered or fled into hiding. But for help in killing a half-million Communists, the army called upon a major source of crisis power: the devout Moslems.

The devout Moslems (*santris*) comprise perhaps 40 per cent of the Indonesian population. Their political organization and discipline have been generally poor, both Masjumi and the NU being loose associations that have depended primarily upon a commitment to Islam (and

the *kiajis*, who are the local leaders of Islam) for mobilizing voters. But against what they consider to be enemies of their religion, they have demonstrated a militancy that is rare among the non-devout population.³

When Masjumi was dissolved by the President in 1960, there was no militant reaction, perhaps because Islam itself was not gravely threatened, especially as the army, which included many *santri* and anti-Communist officers, was one of the two chief members of the ruling coalition. But between 1960 and 1965 the atheistic spectre of the PKI had loomed ever larger as the Party received presidential encouragement and assistance.

Along the boundary of Central and East Java, Moslems awaited revenge for their many coreligionists murdered in the Communist rebellion at Madiun in 1948. Furthermore, if the Moslems hated the PKI, their feelings towards Sukarno ranged from suspicion to hostility: his Islamic fervour was doubted, he had been a bitter enemy of the Darul Islam rebels, he had dissolved Masjumi, he had relegated devout Moslems (other than army officers) to minor positions in the cabinet, he had forced all Indonesians to give public approval to unity with the Communists, he was a close ally of the PKI, and his "Socialism-a-la-Indonesia" appeared likely to hurt the indigenous businessmen and large landowners, many of whom were *santris*.

In October 1965 therefore the army could and did call upon the *santris* to express demonstrative support for the army, to denounce the Sukarno nominees in the cabinet, and to assist in the eradication of the PKI. The butchery commenced.

Sukarno: Found Wanting

As the army-PKI balance was shattered, Sukarno at once lost a major source of power: his ability to play off the one against the other. But the immediate aftermath of the coup attempt also raised grave doubts about other of his bases of power. His claim to speak for the entire nation was negated by the increasingly open criticism levelled against him, especially by *santris*, students, and intellectuals.

The inference that he could arouse the masses to violent action in his own defence was questioned by the obvious passivity of those very masses in the face of other authorities; anyway, he was denied free access to the mass media, the only channel by which he could communicate with the people. No longer could he claim to be the only force capable of keeping Indonesia's major political groups from fighting one another.

And the hitherto unquestioned loyalty of civilian politicians and the bureaucracy was in fact questioned and found wanting. Many of those politicians who had clung to the coattails of the President and the PKI were now outspokenly anti-Communist and pro-army. Lacking control over their own instruments of violence, they understandably went where power appeared to reside; the bureaucracy did likewise.

The bureaucracy lacked cohesion. Its individual members had largely been associated with political parties during parliamentary democracy because that was the way to ensure a position, promotion, and jobs for members of the family. Under Guided Democracy they had dutifully mastered the slogans and propaganda of the regime, and marched and counter-marched in preparation for attacks on or from the neo-colonialists. Their concern, however, was security, which meant that at a time of crisis they would obey whoever commanded force.

The Army: Overwhelming Power

In October 1965 it was the army that commanded force, and the bureaucracy obeyed. This does not imply that the bureaucrats had emotional bonds with the parties, the President, or the army. Their actions were, nonetheless, obedient. They would have been obedient to a Communist government, whatever their private opinions of communism.

The army leaders, then, found themselves in command of overwhelming power. Two questions, however, remain to be answered: Why did they not remove Sukarno, and why did the Communists refuse to fight once the butchery began, if not before?

The army could have assassinated the President (blaming the PKI if necessary), removed him from office, or retained him while ignoring his attempts to protect the PKI.

To have assassinated Sukarno at the time of the coup attempt might have given the Communists a rallying symbol with which to mobilize far more than their own supporters; it could also have split the officers, many of whom are thought to be loyal to the President if not to his policies; it would have set an uncomfortable precedent for dealing with the head of state; and it would have forced the army to take full responsibility for the government and the disastrous economic situation.

To have ousted Sukarno would have produced several of these undesirable results and would have left him alive to continue his intrigues.

The third alternative was the most attractive. The power of the army could be entrenched and that of its major enemy broken. Whatever authority remained with the President could be used in support of

the army-controlled government and, however unwillingly given, in support of the purge of Communists and their sympathizers; Sukarno, continuing as head of state, could then share responsibility for government policies and actions.

The Army: Indirect Ruler

Presumably the army leaders believed they could keep the President's skills of manipulation and intrigue within manageable limits, the more so as his other sources of power were deeply eroded.

It is also apparent that the army leaders are reluctant in general to assume the responsibilities of direct rule. They already possess high status, considerable material rewards, the recognized right to deal with their enemies very much as they please, and a veto power and ultimate control over the civilian members of the government, at the very least in those fields that affect the army's position.

Direct rule would not only bring direct responsibility for the government's past, present, and future failures and inadequacies; it would also require, unless there were to be inter-service disputes, a united concept within the army leadership of the form of society they desired for Indonesia—and there is as yet little evidence of such a united vision.

The Communists Isolated

Regardless of whether or not the PKI was a part of the October coup attempt, the almost immediate failure of the coup left the Party with little choice of action. The cadres could try to take to the hills, or they could go into hiding, or they could continue at their work awaiting the actions of other political forces and trusting to Sukarno's protection.

To go into the hills was an unappealing alternative. The cadres had no arms, no military training; the reasonably good guerrilla areas of Java, Borneo, and Celebes are settled by devout Moslems. The failure of the PRRI's guerrilla warfare in Sumatra, 1958 to 1961, had set no propitious example there, and after the 1948 Madiun rebellion the Communists had been quickly hunted out of the isolated volcanoes of Central-East Java.

And so the Party decided to try to weather out the crisis by denying complicity in the plot, by removing some leaders into hiding, and by leaving others at their posts—as they had done successfully under roughly similar circumstances during the *razzia* of August 1951. This time, however, the army was strong and determined enough to prevent

the PKI's riding out the storm.

It has surprised some observers that the PKI did not choose to call on the militant action of its massive body of supporters. Fifteen, or even three, million determined Communists should have been able to halt the transportation system, block the economy, seize weapons from police and isolated army posts, and overwhelm the army, or at least lead it into widespread guerrilla warfare. The Aidit leadership rejected rebellion for two main reasons: the lines of cleavage along which the crisis broke and the nature of the Party's support.

By October 2, the central army leadership controlled the great majority of the army; it had control of Sukarno, and therefore it commanded the obedience of all non-Communist political leaders, the air force, the navy, and the bureaucracy. In addition, it had the willing allegiance of the devout Moslems.

Were the PKI to fight under such circumstances, it would be in isolation, apart from certain elements of the Diponegoro (Central Java) division which were, anyway, fast to surrender once the coup failed. Even with a militant and disciplined backing, the Communists would have faced at least a major blood-letting and a prolonged civil war of doubtful outcome for themselves. But Aidit did not command the militant and disciplined support of his Party and mass organizations.⁴

Communist Weaknesses

When the Aidit leadership won control of the PKI in January 1951 it found no possibility for an early victory. As a result of the Madiun rebellion, the Party had lost most of its support within the armed forces. The bureaucracy was resistant to Party advances. The Party itself was reduced to about 5,000 dispirited members.

Non-Communist nationalists were entrenched in power, their nationalism well attested. The masses, both urban and rural, were largely politically passive, bound by traditional values, beliefs, and loyalties. But the non-Communists were divided and warring, there was a parliamentary democracy, and the material interests of the poorer masses were largely ignored by the other political parties.

In order to exploit this situation to the utmost, the Aidit leadership sought to garner the support of the non-devout masses and to win the friendship of certain non-Communist parties. Mass support would mean votes, votes in turn gave representation in parliament, and significant representation in parliament provided a strong lever in the multi-party bargaining for coalition government—a major step towards a Czechoslovak-type coup.

The friendship of certain other parties would bring government tolerance of Communist organization work, the opportunity to isolate and exclude from office the more militant anti-Communist groups, and the enhanced possibility of entry into a coalition government.

The chief ally sought was the PNI; a secondary one was the NU. In order to pursue its friendship policy as well as to attract the traditional masses, the PKI was compelled to take on a particular character: opposed to the use of violence, sympathetic to religion, reasonable in demands, and solicitous of the interests of its allies. The alliances were won, as was a mass following.

The peasants and urban poor generally accepted their underprivileged condition as preordained. They were poor, but poverty was eternal; others were wealthy, but that was how society always had been and always would be. They gave deference to traditional authorities or "betters": wealthier persons, village headmen, *kiajis*, the *pamong pradja*.

Dissension and argument were considered worse than distasteful; a person sought to reach harmony with himself and his environment, not to change the world. And how could a diminutive, poor Indonesian ever conceive that he should have any right to another person's property, let alone decide the personnel and policies of the distant and awesome government?

The Communists laboured hard to win the support of the poor by acting as their protector and aid. And the poor responded with votes, but could not envision more militant action. The ingrained attitudes, values, and behaviour of centuries are slow to change in times of peace.

Communist Dependence on Sukarno

Between 1956 and 1959, the PKI forged an alliance with Sukarno, reluctantly accepting mutual protection against the army when parliamentary democracy was discarded. Aidit was aware that the Party's strategy and tactics were designed primarily for a situation of multi-party parliamentary democracy, and the PKI was the most vocal of any party in attempting to defend the system against the Sukarno-army attack. But he also recognized that his Party was too weak to challenge the determined coalition.⁵

Given the need for the Sukarno alliance to prevent the army's implementation of its desire to ban the PKI, and given the non-militant nature of the Party's support, Aidit entered the new era unable to alter the Party's basic character. Sukarno was eulogized, as the Party sought to ensure his protection, win influence through sycophancy and mutual need, and exploit his authority among the non-devout.

THE COUP IN INDONESIA

Organizational work continued, but the Sukarno-army coalition was adamant in preventing the masses from gaining experience in militancy of a domestic political nature. Demonstrations against the neo-colonialists and their stooges were sponsored by the government and often led by Communists; but strikes were forbidden, and the few examples of peasant militancy against landlords or local authorities were met with force.

In short, the nature of the Indonesian masses and the alliance requirements of the Party prevented the PKI from developing among its supporters a militant loyalty focused solely on itself, and a militantly aggressive attitude towards the other actors of Guided Democracy. It is certain that the degree of domestically oriented militancy among cadres and followers was slowly rising, despite government attempts to stifle it, but it was still relatively little advanced by October 1965.

Apart from a small number of cadres, the Indonesian Communists were politically trained to cooperate with the non-Communists, to join with them in nationalist demonstrations against the Dutch, the British, the Indians, the Malaysians, and the United States, to give considerate attention to the interests of national businessmen and landowners, and to look to President Sukarno for national leadership.

It is not surprising, then, that in October 1965 the Aidit leadership decided that once the coup had failed and the army controlled Sukarno's access to the public, the Party could not attempt to move into general insurrection or guerrilla warfare. Some cadres stayed at their jobs until arrested or killed, while others went into hiding, from where they were soon ferreted. Today, many cadres are dead, and almost all the remainder are in prison or hiding, awaiting an uncertain future.

Was It Inevitable?

This essay should not lead to the conclusion that the decimation of the PKI and the victory of the central army command were inevitable. A question will be discussed for many years: What if the coup leaders, with President Sukarno in their hands, had killed Generals Nasution and Suharto?

If this had happened, and if Sukarno had then appointed a new, pro-Communist central army command, there might well have been a very different situation today.

A new central army command using the authority of Sukarno and with the demonstrative support of the PKI could well have succeeded in controlling the country. The cabinet and PNI and NU leaders would have fallen into line; the bureaucracy would have functioned loyally.

Regional army commanders would probably not have dared to oppose, since they would not have known which of their officers would actually war against the President and his government, and they would have recalled the pathetic response to the PRRI-Permesta's anti-Sukarno civil war. The PKI, acting in the name of the state and Sukarno, would probably have been able to sabotage rebellion in Java and several regions in the Outer Islands.

As chance had it, Suharto was left off the murder list, Nasution eluded his would-be assassins, and the army quickly confined Sukarno to protective custody. The subsequent and bloody dismantling of the PKI brought to a close the era of Guided Democracy. A new structuring of political power was in the making.

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- ² Information on the officer corps is to be found in Guy J. Pauker, "The Role of the Military in Indonesia," in John J. Johnson (ed.), *The Role of the Military in Underdeveloped Countries* (Princeton, New Jersey, 1962).
- ³ Although there have been several rebellions in Indonesia since the end of the war of independence in 1949, those of Moslem fanatics have been generally the most persistent and bloody: in Atjeh in the 1950's, in West Java and adjacent areas of Central Java until 1962, and in South Celebes until 1965. Reports in late 1964 and during 1965 indicated that in at least parts of East Java the Moslems were beginning to employ violence against Communist village workers.
- ⁴ For an account of the development of the PKI under Aidit's leadership, see the author's *The Communist Party of Indonesia, 1951-1963* (Berkeley and Los Angeles, 1964).
- ⁵ That the Sukarno-army dismissal of the parliamentary system faced the PKI leadership with distasteful but unavoidable choices is seen most clearly and pathetically in Sakirman, "Apa Arti Sokongan PKI kepada UUD 1945 dan Demokrasi Terpimpin" (The Meaning of the PKI's Support for the 1945 Constitution and Guided Democracy), *Bintang Merah*, part I, May-June 1960; part II, July-August 1960.

TOXIC SUBSTANCES AND ECOLOGICAL CYCLES

GEORGE M. WOODWELL

THE VASTNESS OF THE EARTH has fostered a tradition of unconcern about the release of toxic wastes into the environment. Billowing clouds of smoke are diluted to apparent nothingness; discarded chemicals are flushed away in rivers; insecticides "disappear" after they have done their job; even the massive quantities of radioactive debris of nuclear explosions are diluted in the apparently infinite volume of the environment.

Such pollutants are indeed diluted to traces—to levels infinitesimal by ordinary standards, measured as parts per billion or less in air, soil, and water. Some pollutants do disappear; they are immobilized or decay to harmless substances. Others last, sometimes in toxic form, for long periods.

Biological Concentration of Toxins

We have learned in recent years that dilution of persistent pollutants even to trace levels detectable only by refined techniques is no guarantee of safety. Nature has ways of concentrating substances that are frequently surprising and occasionally disastrous.

We have had dramatic examples of one of the hazards in the dense smogs that blanket our cities with increasing frequency. What is less widely realized is that there are global, long-term ecological processes that concentrate toxic substances, sometimes hundreds of thousands of times above levels in the environment.

These processes include not only patterns of air and water circulation but also a complex series of biological mechanisms. Over the past

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decade detailed studies of the distribution of both radioactive debris and pesticides have revealed patterns that have surprised even biologists long familiar with the unpredictability of nature.

Major contributions to knowledge of these patterns have come from studies of radioactive fallout. The incident that triggered worldwide interest in large-scale radioactive pollution was the hydrogen-bomb test at Bikini in 1954 known as "Project Bravo." This was the test that inadvertently dropped radioactive fallout on several Pacific islands and on the Japanese fishing vessel *Lucky Dragon*.

Several thousand square miles of the Pacific were contaminated with fallout radiation that would have been lethal to man. Japanese and U.S. oceanographic vessels surveying the region found that the radioactive debris had been spread by wind and water, and, more disturbing, it was being passed rapidly along food chains from small plants to small marine organisms that ate them to larger animals (including the tuna, a staple of the Japanese diet).

International Research

The U.S. Atomic Energy Commission and agencies of other nations, particularly Britain and the U.S.S.R., mounted a large international research programme, costing many millions of dollars, to learn the details of the movement of such debris over the earth and to explore its hazards.

Although these studies have been focused primarily on radioactive materials, they have produced a great deal of basic information about pollutants in general. The radioactive substances serve as tracers to show the transport and concentration of materials by wind and water and the biological mechanisms that are characteristic of natural communities.

One series of investigations traced the worldwide movement of particles in the air. The tracer in this case was strontium 90, a fission product released into the earth's atmosphere in large quantities by nuclear-bomb tests.

Two reports in 1962—one by S. Laurence Kulp and Arthur R. Schulert of Columbia University and the other by a United Nations committee—furnished a detailed picture of the travels of strontium 90. The isotope was concentrated on the ground between the latitude of 30 and 60 degrees in both hemispheres, but concentrations were five to ten times greater in the Northern Hemisphere, where most of the bomb tests were conducted.

It is apparently in the middle latitudes that exchanges occur between

TOXIC SUBSTANCES

the air of upper elevations (the stratosphere) and that of lower elevations (the troposphere). The larger tests have injected debris into the stratosphere; there it remains for relatively long periods, being carried back into the troposphere and to the ground in the middle latitudes in late winter or spring.

The mean "half-time" of the particles' residence in the stratosphere (that is, the time for half of a given injection to fall out) is from three months to five years, depending on many factors, including the height of the injection, the size of the particles, the latitude of injection, and the time of year. Debris injected into the troposphere has a mean half-time of residence ranging from a few days to about a month.

Worldwide Dispersion

Once airborne, the particles may travel rapidly and far. The time for one circuit around the earth in the middle latitudes varies from twenty-five days to less than fifteen. (Following two recent bomb tests in China, fallout was detected at the Brookhaven National Laboratory on Long Island respectively nine and fourteen days after the tests.)

Numerous studies have shown further that precipitation (rain and snowfall) plays an important role in determining where fallout will be deposited. Lyle T. Alexander of the Soil Conservation Service and Edward P. Hardy, Jr., of the AEC found in an extensive study in Clallam County, Washington, that the amount of fallout was directly proportional to the total annual rainfall.

It is reasonable to assume that the findings about the movement and fallout of radioactive debris also apply to other particles of similar size in the air. This conclusion is supported by a recent report by Donald F. Gatz and A. Nelson Dingle of the University of Michigan, who showed that the concentration of pollen in precipitation follows the same pattern as that of radioactive fallout.

This observation is particularly meaningful because pollen is not injected into the troposphere by a nuclear explosion; it is picked up in air currents from plants close to the ground. There is little question that dust and other particles, including small crystals of pesticides, also follow these patterns.

From these and other studies it is clear that various substances released into the air are carried widely around the world and may be deposited in concentrated form far from the original source. Similarly, most bodies of water—especially the oceans—have surface currents that may move materials five to ten miles a day. Much higher rates, of course, are found in such major oceanic currents as the Gulf Stream.

These currents are one more physical mechanism that can distribute pollutants widely over the earth.

Plant and Animal Pathways

The research programmes of the AEC and other organizations have explored not only the pathways of air and water transport but also the pathways along which pollutants are distributed in plant and animal communities. In this connection we must examine what we mean by a "community."

Biologists define communities broadly to include all species, not just man. A natural community is an aggregation of a great many different kinds of organisms, all mutually interdependent. The basic conditions for the integration of a community are determined by physical characteristics of the environment such as climate and soil.

Thus a sand dune supports one kind of community, a freshwater lake another, a high mountain still another. Within each type of environment there develops a complex of organisms that in the course of evolution becomes a balanced, self-sustaining biological system.

Such a system has a structure of interrelations that endows the entire community with a predictable developmental pattern, called "succession," that leads towards stability and enables the community to make the best use of its physical environment. This entails the development of cycles through which the community as a whole shares certain resources, such as mineral nutrients and energy.

For example, there are a number of different inputs of nutrient elements into such a system. The principal input is from the decay of primary minerals in the soil. There are also certain losses, mainly through the leaching of substances into the underlying water table. Ecologists view the cycles in the system as mechanisms that have evolved to conserve the elements essential to the survival of the organisms making up the community.

Food Chains

One of the most important of these cycles is the movement of nutrients and energy from one organism to another along the pathways that are sometimes called food chains. Such chains start with plants, which use the sun's energy to synthesize organic matter; animals eat the plants; other animals eat these herbivores; and carnivores in turn may constitute additional levels feeding on the herbivores and on one another.

If the lower orders in the chain are to survive and endure, there must be a feedback of nutrients. This is provided by decay organisms (mainly microorganisms) that break down organic debris into the substances used by plants. It is also obvious that the community will not survive if essential links in the chain are eliminated; therefore the preying of one level on another must be limited.

Ecologists estimate that such a food chain allows the transmission of roughly 10 per cent of the energy entering one level to the next level above it, that is, each level can pass on 10 per cent of the energy it receives from below without suffering a loss of population that would imperil its survival. The simplest version of a system of this kind takes the form of a pyramid, each successively higher population receiving about a tenth of the energy received at the level below it.

Actually, nature seldom builds communities with so simple a structure. Almost invariably the energy is not passed along in a neatly ordered chain but is spread about to a great variety of organisms through a sprawling, complex web of pathways. The more mature the community, the more diverse its makeup and the more complicated its web. In a natural ecosystem the network may consist of thousands of pathways.

Man as Consumer of Toxics

This complexity is one of the principal factors we must consider in investigating how toxic substances may be distributed and concentrated in living communities. Other important basic factors lie in the nature of the metabolic process. For example, of the energy a population of organisms receives as food, usually less than 50 per cent goes into the construction of new tissue, the rest being spent for respiration. This circumstance acts as a concentrating mechanism: a substance not involved in respiration and not excreted efficiently may be concentrated in the tissues twofold or more when passed from one population to another.

Let us consider three types of pathway for toxic substances that involve man as the ultimate consumer. The three examples, based on studies of radioactive substances, illustrate the complexity and variety of pollution problems.

The first and simplest case is that of strontium 90. Similar to calcium in chemical behaviour, this element is concentrated in bone. It is a long-lived radioactive isotope and is a hazard because its energetic beta radiation can damage the mechanisms involved in the manufacture of blood cells in the bone marrow. In the long run, the irradiation may

produce certain types of cancer.

The route of strontium 90 from air to man is rather direct: we ingest it in leafy vegetables, which absorbed it from the soil or received it as fallout from the air, or in milk and other dairy products from cows that have fed on contaminated vegetation. Fortunately, strontium is not usually concentrated in man's food by an extensive food chain. Since it lodges chiefly in bone, it is not concentrated in passing from animal to animal in the same ways other radioactive substances may be (unless the predator eats bones!).

Quite different is the case of the radioactive isotope cesium 137. This isotope, also a fission product, has a long-lived radioactivity (its half-life is about thirty years) and emits penetrating gamma rays. Because it behaves chemically like potassium, an essential constituent of all cells, it becomes widely distributed once it enters the body. Consequently, it is passed along to meat-eating animals, and under certain circumstances it can accumulate in a chain of carnivores.

Lichens to Caribou to Man

A study in Alaska by Wayne C. Hanson, H. E. Palmer, and B. I. Griffin of the AEC's Pacific-Northwest Laboratory showed that the concentration factor for cesium 137 may be two or three for one step in a food chain.

The first link of the chain in this case was lichens growing in the Alaskan forest and tundra. The lichens collected cesium 137 from fallout in rain. Certain caribou in Alaska live mainly on lichens during the winter, and caribou meat in turn is the principal diet of Eskimos in the same areas. The investigators found that caribou had accumulated about fifteen micromicrocuries of cesium radioactivity per gram of tissue in their bodies.

The Eskimos who fed on these caribou had a concentration twice as high (about thirty micromicrocuries per gram of tissue) after eating many pounds of caribou meat in the course of a season. Wolves and foxes that ate caribou sometimes contained three times the concentration in the flesh of the caribou. It is easy to see that in a longer chain, involving not just two animals but several, the concentration of a substance that was not excreted or metabolized could be increased to high levels.

Thyroid Troubles

A third case is that of iodine 131, another gamma ray emitter. Again

the chain to man is short and simple: The contaminant (from fallout) comes to man mainly through cows' milk, and thus the chain involves only grass, cattle, milk, and man. The danger of iodine 131 lies in the fact that iodine is concentrated in the thyroid gland.

Although iodine 131 is short-lived (its half-life is only about eight days), its quick and localized concentration in the thyroid can cause damage. For instance, a research team from the Brookhaven National Laboratory headed by Robert Conard has discovered that children on Rongelap Atoll who were exposed to fallout from the 1954 bomb test later developed thyroid nodules.

The investigations of the iodine 131 hazard yielded two lessons that have an important bearing on the problem of pesticides and other toxic substances released in the environment. In the first place, we have had a demonstration that the hazard of the toxic substance itself often tends to be underestimated. This was shown to be true of the exposure of the thyroid to radiation. Thyroid tumours were found in children who had been treated years before for enlarged thymus glands with doses of X rays that had been considered safe.

As a result of this discovery and studies of the effects of iodine 131, the Federal Radiation Council in 1961 issued a new guide reducing the permissible limit of exposure to ionizing radiation to less than a tenth of what had previously been accepted. Not the least significant aspect of this lesson is the fact that the toxic effects of such a hazard may not appear until long after the exposure; on Rongelap Atoll ten years passed before the thyroid abnormalities showed up in the children who had been exposed.

The second lesson is that, even when the pathways are well understood, it is almost impossible to predict just where toxic substances released into the environment will reach dangerous levels.

Even in the case of the simple pathway followed by iodine 131, the eventual destination of the substance and its effects on people are complicated by a great many variables: the area of the cow's pasture (the smaller the area, the less fallout the cow will pick up); the amount and timing of rains on the pasture (which on the one hand may bring down fallout but on the other may wash it off the forage); the extent to which the cow is given stored, uncontaminated feed; the amount of iodine the cow secretes in its milk; the amount of milk in the diet of the individual consumer; and so on.

Pesticide Problems

If it is difficult to estimate the nature and extent of the hazards from

radioactive fallout, which have been investigated in great detail for more than a decade by an international research programme, it must be said that we are in a poor position indeed to estimate the hazards from pesticides.

So far the amount of research effort given to the ecological effects of these poisons has been comparatively small, although it is increasing rapidly. Much has been learned, however, about the movement and distribution of pesticides in the environment, thanks in part to the clues supplied by the studies of radioactive fallout.

Our chief tool in the pesticide inquiry is DDT. There are many reasons for focusing on DDT: it is long-lasting, it is now comparatively easy to detect, it is by far the most widely used pesticide, and it is toxic to a broad spectrum of animals, including man. Introduced only a quarter-century ago and spectacularly successful during World War II in controlling body lice and therefore typhus, DDT quickly became a universal weapon in agriculture and in public health campaigns against disease-carriers.

Not surprisingly, by this time DDT has thoroughly permeated our environment. It is found in the air of cities, in wildlife all over North America, and in remote corners of the earth, even in Adelie penguins and skua gulls (both carnivores) in the Antarctic. It is also found the world over in the fatty tissue of man. It is fair to say that there are probably few populations in the world that are not contaminated to some extent with DDT.

DDT by Wind and Water

We now have a considerable amount of evidence that DDT is spread over the earth by wind and water in much the same patterns as radioactive fallout. This seems to be true in spite of the fact that DDT is not injected high into the atmosphere by an explosion. When DDT is sprayed in the air, some fraction of it is picked up by air currents as pollen is, circulated through the lower troposphere, and deposited on the ground by rainfall.

I found in tests in Maine and New Brunswick, where DDT has been sprayed from airplanes to control the spruce budworm in forests, that even in the open, away from trees, about 50 per cent of the DDT does not fall to the ground. Instead it is probably dispersed as small crystals in the air. This is true even on days when the air is still and when the low-flying planes release the spray only fifty to 100 feet above treetop level.

Other mechanisms besides air movement can carry DDT for great

TOXIC SUBSTANCES

distances around the world. Migrating fish and birds can transport it thousands of miles. So also do oceanic currents. DDT has only a low solubility in water (the upper limit is about one part per billion), but as algae and other organisms in the water absorb the substance in fats, where it is highly soluble, they make room for more DDT to be dissolved into the water. Accordingly, water that never contains more than a trace of DDT can continuously transfer it from deposits on the bottom to organisms.

DDT is an extremely stable compound that breaks down very slowly in the environment. Hence with repeated spraying the residues in the soil or water basins accumulate.

Working with Frederic T. Martin of the University of Maine, I found that in a New Brunswick forest where spraying had been discontinued in 1958 the DDT content of the soil increased from half a pound per acre to 1.8 pounds per acre in the three years between 1958 and 1961. Apparently, the DDT residues were carried to the ground very slowly on foliage and decayed very little. The conclusion is that DDT has a long half-life in the trees and soil of a forest, certainly in the range of tens of years.

Location	Organism	Tissue	Concentration (Parts Per Million)
Israel	Man	Fat	19.2
India			12.8-31.0
Hungary			12.4
U.S. (Average)			11
Canada			5.3
France			5.2
Alaska (Eskimo)			2.8
West Germany			2.3
England			2.2

Concentrations of DDT

Doubtless there are many places in the world where reservoirs of DDT are accumulating. With my colleagues Charles F. Wurster, Jr., and Peter A. Isaacson of the State University of New York at Stony Brook, I recently sampled a marsh along the south shore of Long Island that had been sprayed with DDT for twenty years to control

mosquitoes. We found that the DDT residues in the upper layer of mud in this marsh ranged up to 32 pounds per acre!

We learned further that plant and animal life in the area constituted a chain that concentrated the DDT in spectacular fashion. At the lowest level, the plankton in the water contained .04 part per million of DDT; minnows contained one part per million; and a carnivorous scavenging bird (a ring-billed gull) contained about seventy-five parts per million in its tissues (on a whole-body, wet-weight basis). Some of the carnivorous animals in this community had concentrated DDT by a factor of more than 1,000 over the organisms at the base of the ladder.

A further tenfold increase in the concentrations along this food web would in all likelihood result in the death of many of the organisms in it. It would then be impossible to discover why they had disappeared. The damage from DDT concentration is particularly serious in the higher carnivores. The mere fact that conspicuous mortality is not observed is no assurance of safety. Comparatively low concentrations may inhibit reproduction and thus cause the species to fade away.

Catastrophes Ahead

That DDT is a serious ecological hazard was recognized from the beginning of its use. In 1946 Clarence Cottam and Elmer Higgins of the U.S. Fish and Wildlife Service warned in the *Journal of Economic Entomology* that the pesticide was a potential menace to mammals, birds, fishes, and other wildlife, and that special care should be taken to avoid its application to streams, lakes, and coastal bays because of the sensitivity of fishes and crabs.

Because of the wide distribution of DDT the effects of the substance on a species of animal can be more damaging than hunting or the elimination of a habitat (through an operation such as dredging marshes). DDT affects the entire species rather than a single population and may well wipe out the species by eliminating reproduction.

Within the past five years, with the development of improved techniques for detecting the presence of pesticide residues in animals and the environment, ecologists have been able to measure the extent of the hazards presented by DDT and other persistent general poisons. The picture that is emerging is not a comforting one.

Pesticide residues have now accumulated to levels that are catastrophic for certain animal populations, particularly carnivorous birds. Furthermore, it has been clear for many years that because of their shotgun effect these weapons not only attack the pests but also destroy predators and competitors that normally tend to limit proliferation of

TOXIC SUBSTANCES

the pests. Under exposure to pesticides the pests tend to develop new strains that are resistant to the chemicals. The result is an escalating chemical warfare that is self-defeating and has secondary effects whose costs are only beginning to be measured.

No Safety in the Vastness of the Earth

One of the costs is wildlife, notably carnivorous and scavenging birds, such as hawks and eagles. There are others: destruction of food webs aggravates pollution problems, particularly in bodies of water that receive mineral nutrients in sewage or in water draining from heavily fertilized agricultural lands. The plant populations, no longer consumed by animals, fall to the bottom to decay anaerobically, producing hydrogen sulfide and other noxious gases, further degrading the environment.

The accumulation of persistent toxic substances in the ecological cycles of the earth is a problem to which mankind will have to pay increasing attention. It affects many elements of society, not only in the necessity for concern about the disposal of wastes but also in the need for a revolution in pest control.

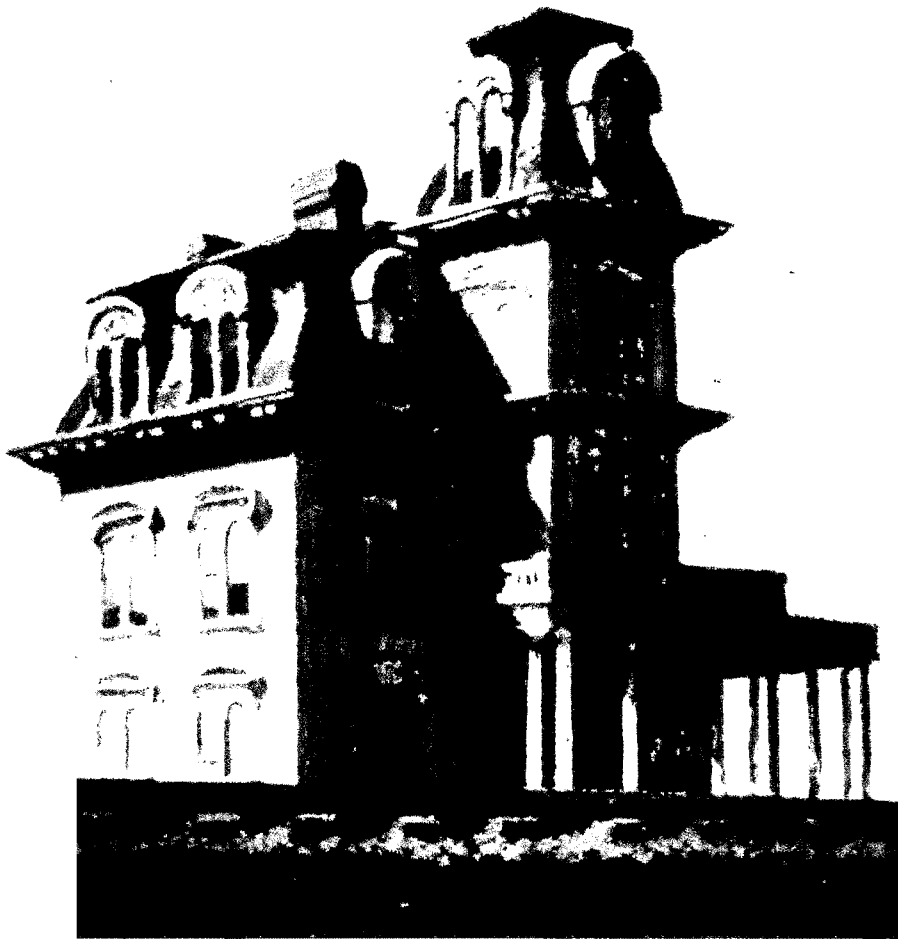
We must learn to use pesticides that have a short half-life in the environment—better yet, to use pest-control techniques that do not require applications of general poisons. What has been learned about the dangers in polluting ecological cycles is ample proof that there is no longer safety in the vastness of the earth.

GEORGE M. WOODWELL is an ecologist at the Brookhaven National Laboratory. He notes that his article in no way reflects an official attitude of the U.S. Atomic Energy Commission or Brookhaven National Laboratory.

"I WANT TO PAINT SUNLIGHT"

JACK KROLL

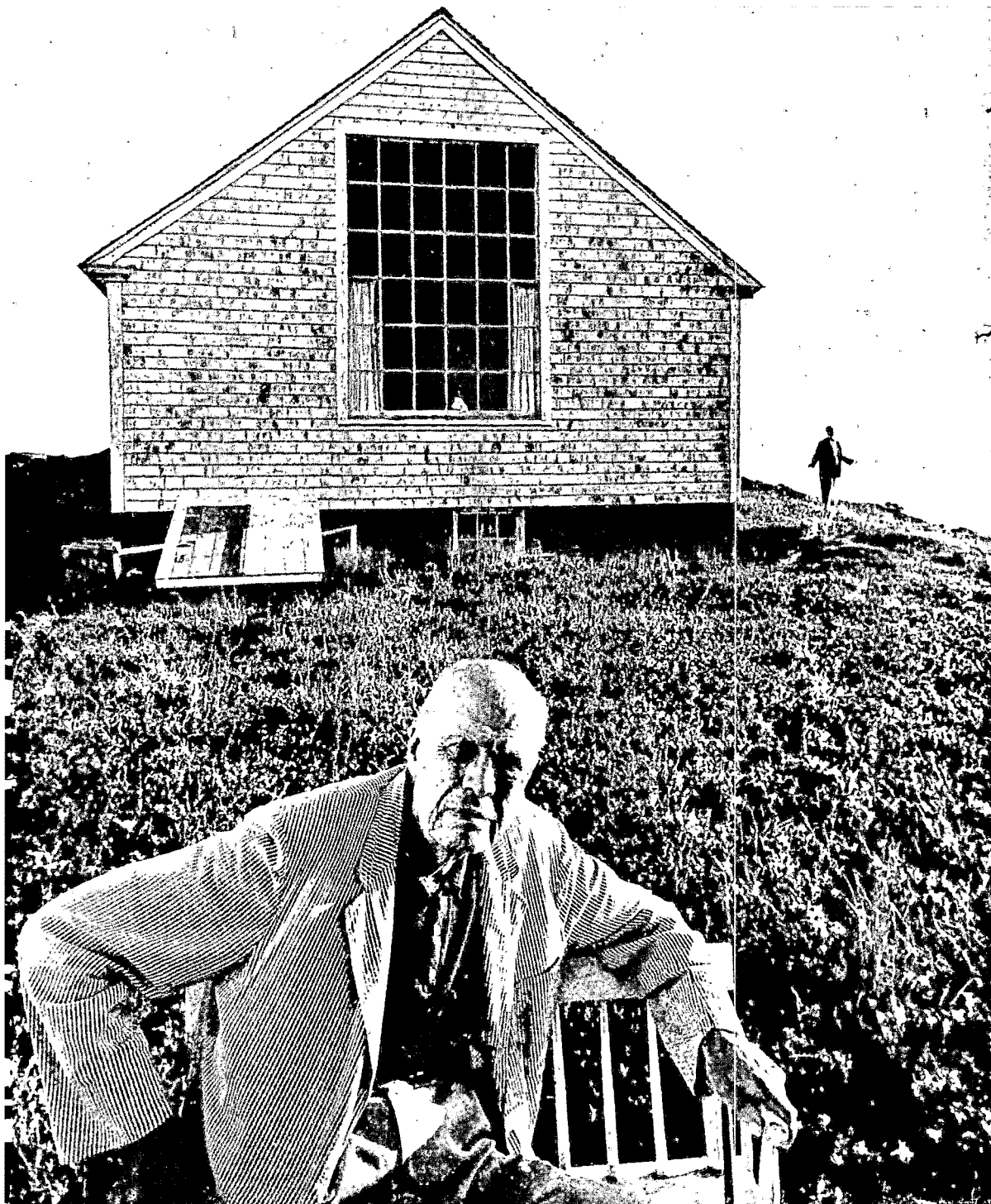
A Portfolio of Edward Hopper's Paintings



HOUSE BY THE RAILROAD, 1925

The Museum of N

*Our home, half shelter and half exile,
with fear breathing through the windowed curtains*



Edward Hopper, American artist who died at 84 in May 1967

EDWARD HOPPER, who died at 84 in May of this year,
left behind his silence, his light, his vital vacuums,
the immense intimacies of his unforgettable images,
touchstones for the American consciousness.

Matter of factly, Hopper got to the heart of the matter. Do we live
in the country? Hopper painted

our house, half home and half dream,
drenched by a light half sun, half moon—
the house where the human spirit hangs its hat.

Do we live in the city? Hopper painted

our home, half shelter and half exile,
with fear breathing through the windowed curtains
and a piano touched by one sad finger.

Do we, dead or desperate, live nowhere? Hopper painted

our absence—the waiting wall, the empty room,
the light intercepted by no flesh.

Was he a realist, a modernist, a romantic, a structuralist,
a poet? Yes, all of them. Like all real art, Hopper's vision can
be used again and again, and the future will enjoy doing it.

Today's jittery young artists are itching with sharp, bright ideas,
but Hopper was one of those masterly misers

whose compulsion is both character and cognition,
like Ryder endlessly igniting his moons,
or Giacometti rubbing his nudes
down to the nerves.

JACK KROLL is a senior editor of "Newsweek" in charge of The Arts,
which includes the Art, Music, Movies, Theatre, and Books sections
of the magazine. He is also a frequent contributor of articles on con-
temporary art and literature to various U.S. and foreign periodicals.

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“What I wanted to do,” said Hopper, “was to paint sunlight on the side of a house,” a statement of such tricky modesty that one tends to forget that it means: “I want to paint the human soul.”

In this, Hopper was very American, very pragmatic, very practical. You can’t paint the human soul, even if you’re a big strong 6-foot-5 English-Dutch-Welsh-Danish Yankee born in Nyack, N.Y., and you’ve been to Paris and everywhere and you’ve studied with Robert Henri and the pioneer American modernists.

So of course you paint

*sunlight on a wall;
or three gas pumps glowing eerily in a rural twilight;
or the velvet-and-brass hush of a nearly empty movie house;
or a man, a woman, and a dog,
nursing the evening silence by their house,
floating in a sea of grass;
or two ladies with red lips and white necks,
over a silent tea at a Chinese restaurant.*



APE COD EVENING, 1939

Collection of the Honourable and Mrs. John

*A man, a woman, and a dog,
nursing the evening silence by their house...*

Or you paint
*the complicated loneliness
of the limbo hours in a coffeeshop,
like a glass-hulled boat
trapped in the black ice of the city,
lit by a slice of yellow light like stale lemon pie,
and full of the sadness
of a gray fedora,
a red dress,
and a clean coffee urn.*

Not many artists seize something quintessential; Hopper was one of them. His white wooden houses,
*baking brightly in the American noon,
are like rhythms in the poems of Robert Frost.*



SECOND-STORY SUNLIGHT, 1960

Whitney Museum of America

Our house, half home, half dream...



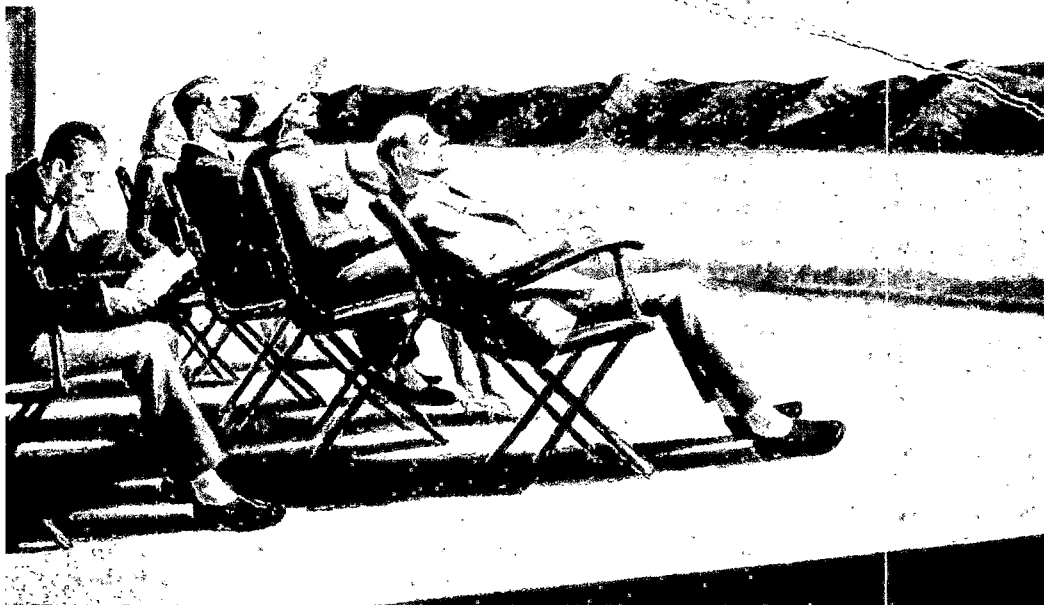
EARLY SUNDAY MORNING, 1930

Whitney Museum of

... Barber poles, and fire hydrants ...

His chimneys, barber poles, and fire hydrants are like
the images in William Carlos Williams
wrung out of the world's clutter
and sluiced to a shine
in the rhythmic single-mindedness of the artist.

It's pleasing to think how old-fashioned and modern Hopper is—
 his pictures have the dramatic morality of Eugene O'Neill,
 but they also look startlingly like Michelangelo Antonioni,
with those solitary citizens
lost in a world that seems
like the backstage of oblivion.



PEOPLE IN THE SUN, 1960

... Baking brightly in the American noon ...

Hopper, the Dutch Yankee, captured the Puritan pathos of America's crowded loneliness.

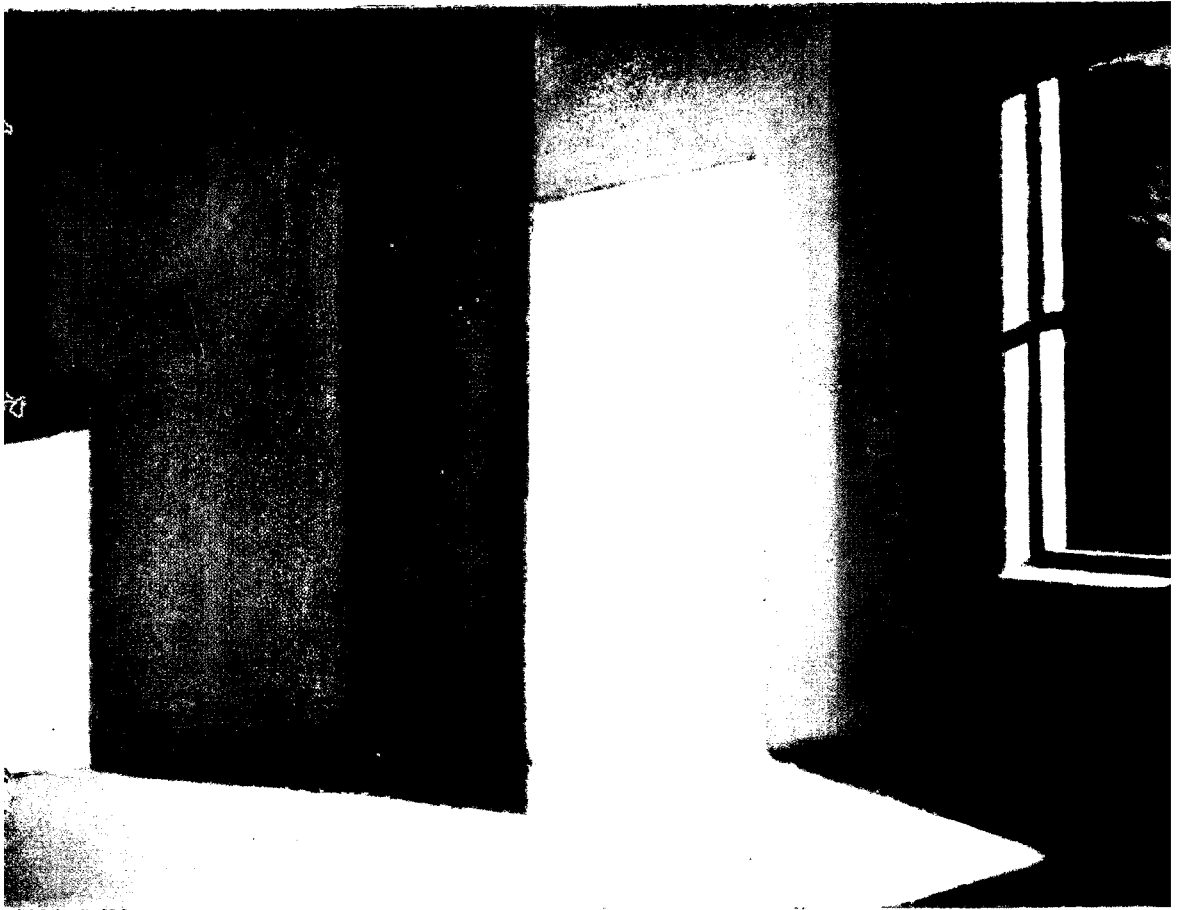
One mustn't think of Matisse or Picasso when looking at these stooped, stolid figures, any more than one should think of Tolstoi while reading Dreiser.

Hopper paints

*a secretary and her boss in an office at night.
He at his desk, she at the filing cabinet,
her sumptuous bottom swelling her prim dress.*

He paints

*an usherette standing by
in her blue trousered uniform,
her thonged shoes,
her blond pageboy bob,
gleaming under the dim bulbs.*



SUN IN AN EMPTY ROOM, 1963

Whitney Museum of American Art

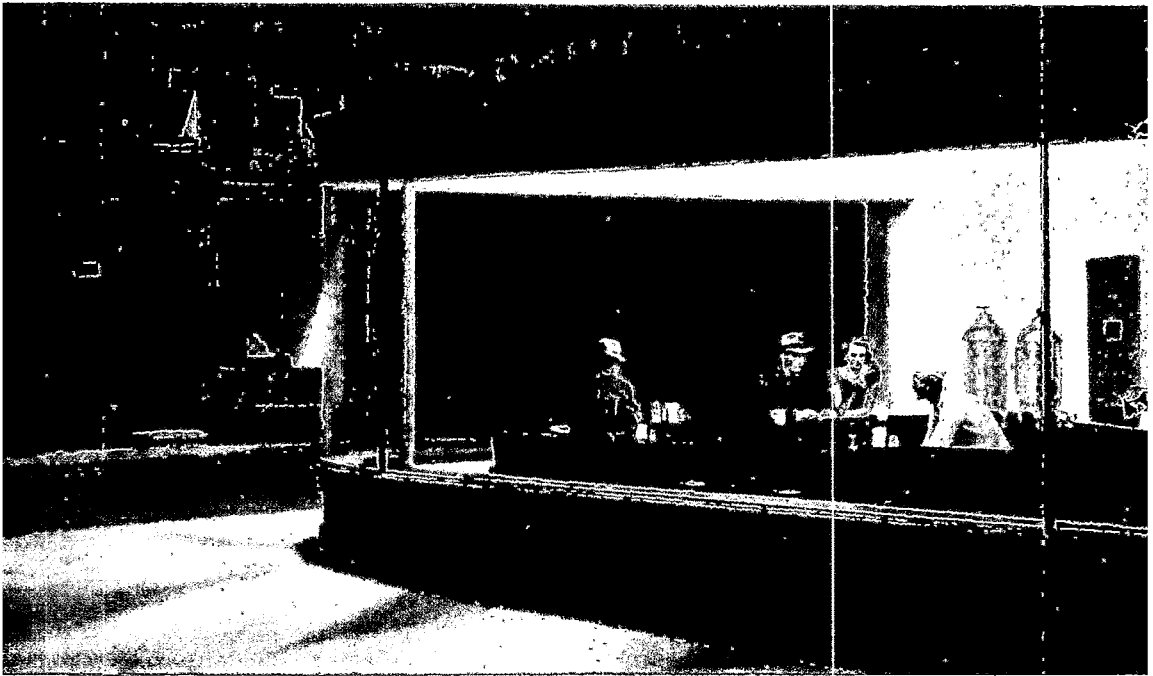
... *Sunlight on a wall* ...

Hopper's women have
that American ache
made out of love, desire, fear, and compassion;
It's in Hawthorne, Poe, Dreiser, Faulkner,
and the lacerated females of Willem de Kooning.

It is the burning chastity of romantic realists who see anguish in the forms of things.

Hopper saw this so early and so clearly that he had no trouble rejecting the temptations to aesthetic flashiness that came with this century.

That sort of thing, he said, "has no place in this writing down of life;



THAWKS, 1942

The Art Institute of Chicago

The limbo hours in a coffee shop

the concentration is too intense to allow the hand to flourish playfully about."

He married in 1924 and he and his wife, Jo, lived on Cape Cod and in New York, seventy-four steps up the red-brick house at 3 Washington Square North until he left her in May.

All that time he spent in the "writing down of life," working with powerful slowness in oils, water colours, and etchings.

He hardly spoke; he would contemplate an empty canvas-stretcher for hours, watching the fact of his own feeling building itself a solid form out of nothing.

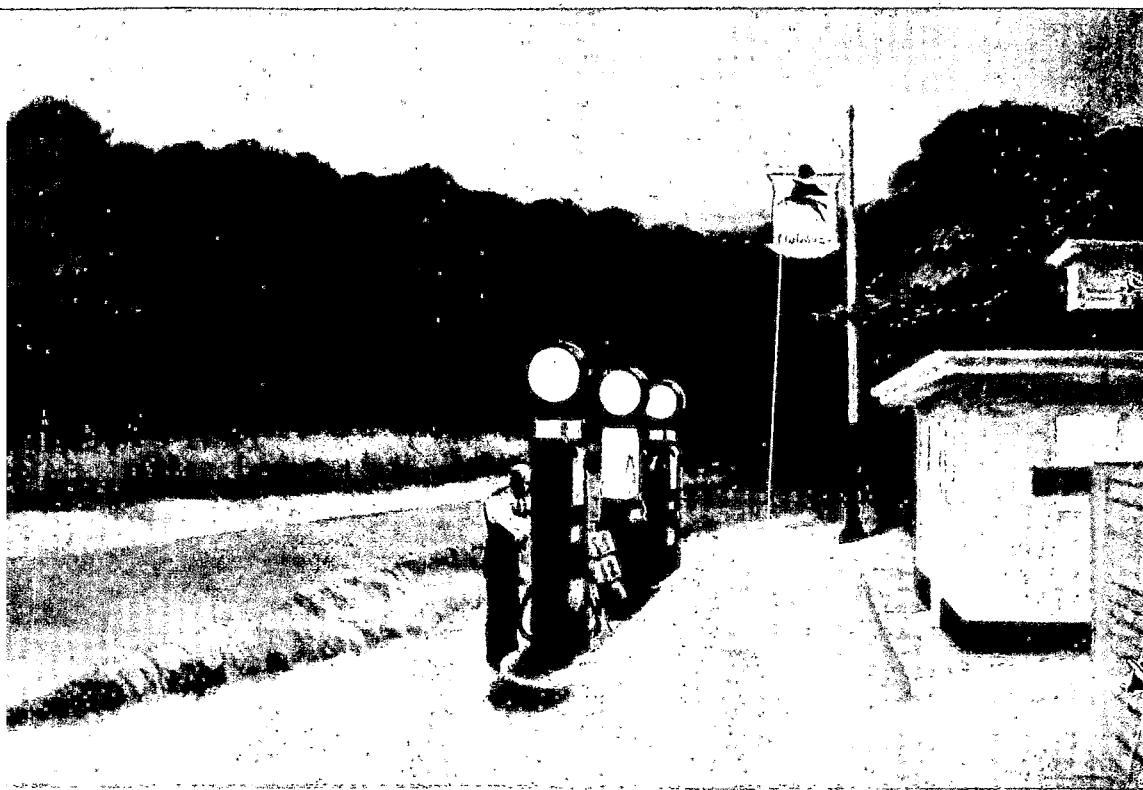
And then he would put that form down, stark, and clean, and humming with his unnamable emotion. He is one of the few Americans in any art who has achieved the virtue and honour of the master.



CAPE COD MORNING, 1950

The Sara Roby Founda

*... That American ache made out of
love desire fear and compassion*



Three gas pumps glowing eerily in a rural twilight

SALT-WATER AGRICULTURE

HUGO BOYKO

ARID AND SEMIARID AREAS occupy fully a third of the earth's land surface. Within them are extensive regions of sand dunes, largely in deserts and along the coasts. The dune lands have a total area about twice the size of the U.S.

Much of the sandy soil in arid areas could be made agriculturally productive with irrigation, but relatively little irrigation has been undertaken in such regions because the importation of fresh water is usually too expensive and the use of local water, which is often salty, has been avoided in the belief that few land plants can tolerate much salt.

Experiments have demonstrated, however, that many plants can thrive in sandy soil even when they are irrigated with water that is quite salty. Indeed, under the right conditions irrigation can be done with seawater.

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Melons in the Negev

One of the experiments I shall describe has transformed six acres of land in the Negev desert of Israel from a barren waste into a flourishing garden. As a result of the experiment, other parts of the Negev, irrigated solely with saline water, have been made to produce such crops as melons and tomatoes, and the crops have become valuable articles of export for the desert settlements.

Experiments in India with wheat, in West Germany with a fodder crop, and in Italy with cereals, vegetables, and flowers have similarly yielded encouraging results.

I need scarcely dwell on the potential significance of the work with sandy soil and salty water. Any advance in making sandy soils productive adds to the resources available for the production of food. And any such addition can be a factor in the effort to keep the production of food abreast of the growth of population.

Salty and Desalted Water

In September 1965, 104 investigators representing twenty-three nations and a wide spectrum of disciplines attended a symposium in Rome titled "Irrigation with Highly Saline Water and Seawater with and without Desalination."

The symposium was organized by the World Academy of Art and Science in cooperation with the United Nations Educational, Scientific and Cultural Organization, the National Research Council of Italy, and the Italian Academy of Agriculture. UNESCO also contributed to the financing of the symposium.

A few weeks later, another international symposium was held in Washington. The problem was the same: how to use the saline waters of the oceans. The approach, however, was just the opposite of the one taken in Rome. The participants in Rome were interested in the direct use of saline water and seawater in agriculture; the main subject in Washington was desalination.

Both approaches will doubtless be needed in the campaign against hunger. The water won expensively by desalination will most likely be used in large cities, in industry, and in the cultivation of particularly valuable plants. In any case, the production of desalinated seawater can be expected to save large amounts of fresh water for agriculture.

The direct use of saline water will find its application in converting sandy areas into rich agricultural lands, pastures, and forests. It is with this approach that I shall be concerned here. For more than thirty years,

in ecological work in the sandy regions of many nations, I have made it my task to develop the geophysical and biological principles underlying the use of salty water in agriculture. Practical experiments to test the principles were first undertaken in 1949, when I was ecological adviser to the Ministry of Agriculture of Israel and my wife, Elisabeth Boyko, was horticulturist for the ministry.

The basic principle of saline agriculture is that salty water can be used only on sand and sandy or gravelly soil if the objective is to grow plants on an economic basis. In other kinds of soil the salt soon accumulates, destroying the plants and making the soil unfit for agriculture. In sand, however, such accumulation does not occur. Moreover, one can help the sand rid itself of salt by growing plants that tend to accumulate salt. In this way one achieves what could be called biological desalination.

Four Principles

Underlying the basic postulate that saline agriculture is restricted to a sandy or gravelly environment are a number of other principles. Four of them have long been known, but their applicability to irrigation with highly saline water and seawater has been overlooked because the other principles were not obvious. The four familiar principles arise from the permeability of a soil consisting mainly of sand or gravel compared to the permeability of the more usual type of agricultural soil, which contains a fairly high percentage of clay and silt particles.

The first principle is that water percolates quickly through sand and gravel.

The second is that the root systems of plants are well aerated in such an environment. The reason is that sand and gravel afford more space between particles of soil than clay and silt do.

The third principle is that sodium chloride and magnesium chloride—the components of salt water that are most harmful to plants—have little opportunity to affect plants in sand or gravel. Both are easily soluble, and in addition they are among the first components of salt water to be washed down into deeper layers when soil is watered.

If the movement of the solution is upward because of evaporation or capillary action, sodium chloride and magnesium chloride tend to form crystals on the surface of sand or gravel rather than to remain below the surface, where they can harm plants. In either case the sodium chloride and magnesium chloride are not taken up in dangerous amounts by the selective feeder roots, or root hairs, of plants in sand and gravel.

The fourth principle is that the sodium ion is not adsorbed on particles of sand, whereas it is easily adsorbed on particles of clay. The adsorption of sodium on particles of clay is the main cause of salination in normal agricultural soils. Clay particles swell when they adsorb sodium. As a result, the soil becomes impermeable, salts accumulate, and plants die.

Partial Root Contact

Of the newer principles, the first is what I call partial root contact. It is based on the fact that in sand the space between particles is usually many times larger than the feeder root of a plant can occupy. The concept can best be explained by following the events that occur when plants on a sandy plot are irrigated with salty water.

Immediately after irrigation, the tiny feeder roots of the plant—200 to 500 of them per square millimetre of root—are entirely immersed in the water. Most plants can stand only a brief immersion in salty water.

In sand, however, the water percolates quickly, so that soon the surface of the feeder roots is only partly in contact with the salty water. By then the feeder roots are also partly in contact with air. The oxygen in the air considerably increases the plant's activity and available energy, so that the plant is more able to be selective in the uptake of the nutrient components of the seawater.

The air surrounding the feeder roots remains moist even after percolation. From time to time the moisture condenses, mostly in the cool morning hours. Condensation occurs particularly in continental deserts, where the temperature differences both between night and day and between different layers of sand are substantial.

Subterranean Dew and Viscosity

The condensation is decisive in saline agriculture, because it produces a subterranean dew. The dew, of course, is fresh water. Hence the roots can have a source of fresh water even when chemical analysis of the soil reveals the presence of considerable salt. Any salt thus revealed is adhering to the particles of sand, and the feeder roots are either not in contact with it or only in partial contact. The next irrigation, whether it is done the following day or several months later, washes away any possible accumulation of sodium chloride and magnesium chloride. This, then, is the second of the newer principles, which I call the principle of subterranean dew.

The third principle is closely related to the second and is called the viscosity principle. The film of brine remaining on the surface of feeder roots and the surface of sand particles after the percolation of saline irrigation water is about .000001 millimetre thick. The viscosity of saline water is such that a film so thin is readily broken. Hence the film on the sand particles and the feeder roots cannot be coherent and leaves enough space for aeration.

Biological Desalination

I have already touched on the fourth principle, which is biological desalination. It lies in the ability of certain plants to accumulate salt in their green parts. With each harvest of the crops the salt content of the soil is diminished.

Many investigators have been sceptical of this process. I had long suspected that biological desalination would be effective, and eventually I was able to demonstrate its effectiveness in an experiment my wife and I conducted south of the Dead Sea. The experiment showed that the soil's content of both sodium and chlorine was reduced significantly by two harvests of *Juncus maritimus*, a rush plant, grown on a sandy field and irrigated with saline water.

The Balance of Ionic Environment

For the next principle I am indebted to Hugo Heimann of the Israel Institute of Technology. Heimann became curious about contradictions between farming experience and the widely held view that the damage to plants from salt arises from the excessive osmotic pressure connected with high concentrations of salt.

The view is evidently attributable to the experimental procedures followed by investigators in this field. They grew plants in a culture solution, adding salts one at a time. The concentrations and the correlated osmotic pressures were noted at the point where the plants began to show damage. The damage always appeared at about the same osmotic pressure, regardless of the type of salt used. The experimenters concluded that it resulted from high osmotic pressure, which made it difficult for the plants to take up water.

Heimann pointed out that such experiments failed to duplicate conditions in nature. All organized systems of living cells in an aqueous environment charged with the ions characteristic of salts owe their well-being to a balanced ratio between the ions. Plants in physiologically balanced solutions can stand much higher osmotic pressures than

plants in a solution of a single salt or in unbalanced mixtures.

Such findings led Heimann to the principle he has termed the balance of the ionic environment. It holds that with the proper ratio of ions plants can be grown at surprisingly high levels of salinity. Indeed, seawater has a singularly well-balanced ratio of salts, to which all forms of life were once adapted. It is hardly surprising that plants irrigated with seawater in sand show a higher tolerance for salt than plants irrigated with any other water of the same salt concentration.

Enhanced Vitality

Another principle I have called enhanced vitality. A better term, "enhanced vigour," has been suggested to me by Pierre Dansereau, curator of ecology at the New York Botanical Garden. In German, my native language, I would say *lebenskraft*, which is literally translated as "life strength." At any rate, the principle suggested itself after some experiments we carried out at the Negev Institute for Arid Zone Research in Beersheba.

Five species of plants that had been irrigated with various kinds of water were withdrawn from irrigation and left untended in that arid region. Plants that had been irrigated with seawater and various dilutions of seawater survived two long dry periods of about nine months each better than control plants that had been irrigated with fresh water.

The most vigorous were those irrigated with seawater of the Caspian Sea type, containing between 1 per cent and 1.3 per cent total dissolved solids, and of the North Sea type, containing between 2 per cent and 2.7 per cent. The reason for enhanced vigour may be that the salty waters provided a larger quantity of nutrients than the fresh water.

Global Salt Circulation

The final principle I shall put forward is the principle of global salt circulation. One can perceive this principle most readily by considering the state of affairs along a seacoast. There large quantities of salt are constantly being deposited on the land by wind blowing in from the sea. At the same time, rainfall, runoff, percolation, and the flow of water underground work to carry the salt back to the sea. The result is that coastal regions do not accumulate deposits of salt.

The same factors are at work, although more slowly, in inland areas. The principle indicates that no dangerous accumulation of salt is to be feared on sandy soil irrigated with saline water. Indeed, the principle accounts for the fact that salination of normal agricultural soils can

be overcome in regions of regular rainfall by occasionally letting land lie fallow and by providing appropriate drainage. The Jewish religion's *smittah* year, which is a fallow year every seven years, was probably introduced to allow a season's rains to wash away the salts deposited by irrigation.

All these principles figure in the success of the various experiments that have been conducted in saline agriculture. The first was "The Desert Garden of Eilat," laid out and planted by my wife starting in 1949. This is the six-acre tract in the Negev desert to which I have referred. We were given the task of introducing vegetation in this barren area, where the building of a Red Sea port under the ancient name of Eilat was planned because the Suez Canal was closed to Israel.

A Desert Garden

The climatic features of the area include meagre rain (about an inch a year, falling erratically during the winter), strong winds, and high temperatures. At first the only water available for irrigation was highly saline water from a well eleven miles to the north; we had to bring the water to the garden by command car over the roadless desert. Later we were able to use other water, also saline, which was brought to Eilat by pipeline from an oasis twenty-six miles to the north. The water from the oasis had a total salt content fluctuating between .2 and .6 per cent; the latter percentage corresponds to that of brackish water from the Baltic Sea.

We deliberately chose the gravel hills of the region because of the good percolation there. The soil had a composition of 96.3 per cent stones and sand, 2.7 per cent silt, and 1 per cent clay. In this soil and with such water we have successfully grown some 180 species of plants.

Most of them are not halophytic, or salt-tolerant, under normal conditions. Among them are a blue-leaved acacia, potentially useful as wood or fodder; a sisal that could yield fibre; a silk oak capable of producing hardwood; mulberry, which yields both fruit and leaves to feed silkworms; an oleander that is ornamental and has medicinal uses; and a pomegranate that yields fruit and is also useful in tanning and medicine.

Another of the species is the *Juncus maritimus* that I mentioned in connection with biological desalination. This wild rush, which we cultivated for the first time, could be developed as a raw material for a printing paper of high quality. After the material had been used successfully by a paper mill in Scotland, an American group undertook to produce the crop commercially on a 2,000-acre tract in the sandy desert

of Wadi Araba in Israel. The project, in which saline irrigation will be used, is now in the planting stage.

Direct Seawater Irrigation

Our results in the garden at Eilat led us to undertake some experiments in direct irrigation with seawater. Our objectives were to ascertain the limits of salt tolerance in certain plants and to test experimentally the principles I have described. Our technique was to grow plants in bottomless barrels placed on sand and filled with sand.

We irrigated with four types of seawater: the Caspian Sea type, the North Sea type, an oceanic concentration containing between a 3 and a 4 per cent total of dissolved solids, and an eastern Mediterranean or Red Sea type with a 4 to 5 per cent total of dissolved solids. For control plants we used fresh water.

The experiments involved ten species of plants. Four of them survived irrigation with seawater of the oceanic type, containing more than a 3 per cent total of dissolved solids.

One was *Agropyrum junceum*, a dune grass that is sometimes called wheat grass. It is excellent for holding sand in place and also for animal fodder. Moreover, it is suitable for hybridization with wheat and hence opens up the possibility of breeding salt-tolerant cereals. Another plant was *Calotropis procera*, a desert succulent with many possible uses in the textile and chemical industries. The third was *Hordeum vulgare*, a barley. We used a strongly drought-resistant Bedouin strain, planting seeds from plants we had grown ourselves in highly saline water. The fourth was *Juncus maritimus*.

Our results indicated that the other six species would succeed economically only if they were irrigated with saline water no more concentrated than the Caspian Sea type (1 to 1.3 per cent).

The six included two species of *Agava*, known on the world market as a source of rope fibre; *Rottboellia fasciculata*, a fodder grass; *Ammophila arenaria*, a beach grass used in many countries to prevent the shifting of dunes; another species of *Juncus*; and finally *Beta vulgaris*, the sugar beet, which is known to be salt-tolerant but which had not been grown in water as salty as the water we used for irrigating it.

International Experiments

After obtaining these results, I asked a number of investigators in other countries if they would be interested in undertaking such experiments. Similar projects have been successfully started with seawater in

India, Spain, and West Germany, and with brackish water in Israel, Italy, Spain, Tunisia, Morocco, Sweden, the U.S., and the U.S.S.R. The number of species of plants grown in highly saline water from the sea or from underground sources runs to many dozens.

We have taken only the first tentative steps in this new direction. An extensive international effort will be needed if deserts are to be transformed into agricultural areas by saline irrigation. The participants in the symposium in Rome formulated an appeal for such an effort, adopting a resolution declaring their firm belief "that results already achieved by irrigation with highly saline water indicate clearly that those areas at least where such a water supply is available can be rendered capable of crop production."

I foresee the possibility that the efforts now under way to achieve economical and large-scale desalination of seawater will contribute significantly to the success of saline agriculture. Pumping water from the sea to inland deserts for irrigation will require large amounts of energy. Big nuclear reactors for desalination might serve a dual purpose: supplying fresh water for cities and industries and at the same time generating electricity to pump salt water from the sea or from desert aquifers for use in saline agriculture.

Another possibility lies in the use of electrolytic methods of desalination. Using only a fraction of the energy required for other methods, this technique can yield water of a concentration too salty for drinking but excellent for growing plants. Whatever the approach to saline agriculture, success on a large scale will be achieved only if research in this new field is adequately supported.

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THE AMERICAN NEGRO WRITER

AN INTERVIEW WITH RALPH ELLISON

The Interviewers were James Thompson,
Lennox Raphael, and Steve Cannon

INTERVIEWERS: *Do you think that one of the faults of the Negro writer is that he is unable to come to terms with the human condition—particularly that of the Negro in America?*

ELLISON: The conception of the human condition varies for each and every writer just as it does for each and every individual. Each must live within the isolation of his own senses, dreams, and memories; each must die his own death.

Notes on the Interview

Thomas C. Dent of New Orleans, founding editor of the magazine Umbra, writes:

None of us had known or even seen Ralph Ellison when we asked to talk

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For the writer the problem is to project his own conception eloquently and artistically. Like all good artists, he stakes his talent against the world. But if a Negro writer is going to listen to sociologists—as too many of us do—who tell us that Negro life is in keeping with certain sociological theories, he is in trouble because he will have abandoned his task before he begins.

If he accepts the clichés to the effect that the Negro family is usually a broken family, that it is matriarchal in form and that the mother dominates and castrates the males, if he believes that Negro males are having troubles with their sexuality, or that Harlem is a “Negro ghetto,” he’ll never see the people of whom he wishes to write. He’ll never learn to use his own eyes and his own heart, and he’ll never master the art of fiction.

I don’t deny that sociological formulas are drawn from life, but I do deny that they define the complexity of Harlem. They only abstract it and reduce it to proportions which the sociologists can manage. I simply don’t recognize Harlem in them. And I certainly don’t recog-

with him. We also knew that he was not aware of our workshop of young black writers on the Lower East Side in New York City, or of our magazine, Umbra, which contained our work and the work of other young writers sharply at odds with white America.

A character in his novel was the source of numerous inside jokes which we delighted in springing on unaware outsiders. We would say, “Man, look at that Rinehart,” or, “The Rinehart in that cat is too much,” and if you hadn’t read Invisible Man and hadn’t loved it you were just out of luck. It is only natural, then, that we looked upon a discussion with Ellison with unusual anticipation.

Ellison greeted us courteously, but seemed extremely reserved. We commented on the stunning view of the Hudson River from his apartment on Riverside Drive. It looked like a quiet place, where orderly things happen. He looked like any professor or lawyer, only, in his polo shirt, more relaxed.

He was then, in 1965, a man of about fifty, slightly balding but, I thought, surprisingly youthful. He answered our questions with short, well-formed statements; everything he said had the ring of knowledge, of scholarship.

The second interview followed a few months later. We could not get our tape machine working, so Ellison, who is facile at these things, worked it for us. We talked for almost an hour past our allotted time.

The product of this effort was an absolutely inadequate tape, whereupon we requested a third interview, at which I was not present but which must have lasted, from the length of the transcription, three hours. This is the one you will read. It was both ours and Ellison’s firm hope that the interview could be published in Umbra, a hope not realized because the group has since dissolved.

nize the people of Harlem whom I know. Which is by no means to deny the ruggedness of life there, nor the hardship, the poverty, the sordidness, the filth.

But there is something else in Harlem, something subjective, wilful, and complexly and compellingly human. It is "that something else" that challenges the sociologists who ignore it, and the society which would deny its existence. It is that "something else" which makes for our strength, which makes for our endurance and our promise. This is the proper subject for the Negro American writer.

He doesn't have to spend the tedious time required to write novels simply to repeat what the sociologists and certain white intellectuals are broadcasting. If he does this, he'll not only go begging, but worse, he'll lie to his people, discourage their interest in literature, and emasculate his own talent.

One of the saddest sights currently to be seen is that provided by one of our most "angry" Negro writers who has allowed himself to be enslaved by his acceptance of negative sociological data. He rants and raves against society, but he's actually one of the safest Negroes on the scene. Because he challenges nothing, he can only shout "taint" to some abstract white "tis," countering lies with lies. The human condition? He thinks that white folks have ruled Negroes out of it.

Yes, we do have a terrible time in dealing with the human condition.

One critic has said that the Jewish writer went through a similar period. I think he was trying to say that the Negro writer would very soon get over this and become the major strength in American literature.

I hope he's right, but I wouldn't want to make a prediction. I think, however, that the parallel is much too facile.

Jewish writers are more familiar with literature as a medium of expression. Their history provides for a close identification with writers who were, and are, Jewish even when they wrote or write in languages other than Yiddish or Hebrew; and this even when that identification rests simply on a shared religious tradition and hardly on any other cultural ground whatsoever. It reminds me of our attempts to claim Pushkin and Dumas as Negroes.

By contrast, neither Negro American expression nor religion has been primarily literary. We are by no means, as is said of the Jews, "people of the Book"—not that I see this as a matter for regret. For we have a wider freedom of selection. We took much from the ancient Hebrews and we do share, through Christianity, the values embodied in the literature of much of the world. But our expression

has been oral as against "literary."

And when it comes to the question of identifying those writers who have shaped American literature—the framers of the Declaration, the Constitution, and Lincoln excepted—we tend to project racial categories into the areas of artistic technique, form, insight; *areas where race has no proper place*. We seem to forget that one can identify with what a writer has written, with its form, its manner, techniques, while *rejecting* the writer's beliefs, his prejudices, philosophy, values.

The Jewish American writers have, on the other hand, identified with Eliot, Pound, Hemingway, and Joyce *as writers* while questioning and even rejecting their various attitudes towards the Jews, towards religion, politics, and many other matters. They have taken possession of that which they could use from such writers and converted it to express their own personal and group sense of reality; they have used it to express their own definitions of the American experience.

But we Negro writers seem seldom to have grasped this process of acculturation. Too often we've been in such haste to express our anger and our pain as to allow the single tree of race to obscure our view of the magic forest of art.

If Negro writers ever become the mainstay of American literature, it will be because they have learned their craft and used the intensity, emotional and political, of their group experience to express a greater area of American experience than the writers of other groups.

What the Jewish American writer had to learn before he could find his place was the American-ness of his experience. He had to see himself as American and project his Jewish experience as an experience unfolding within this pluralistic society. When this was done, it was possible to project this variant of the American experience as a metaphor for the whole.

However, I don't believe that any one group can speak for the whole experience—which isn't, perhaps, desirable. They can only reduce it to metaphor, and no one has yet forged a metaphor rich enough to reduce American diversity to form.

Certainly the current group of Jewish writers—among whom there are several I admire—do not speak adequately for me or for Negroes generally. But during the 'thirties Jewish writing, although more skilful, was as provincial as most Negro American writing is today. That's the way it was and we don't solve problems of history by running away from them.

And what I mean by provincial is an inability to see beyond the confines, the constrictions, placed upon Jewish life by its religious and

cultural differences with the larger society; by its being basically the experience of an immigrant people who were, by and large, far less cultured than their more representative members.

It took long years of living in this country, long years of being a unique part of American society and discovering that they were not *forced* to live on the East Side, of discovering that there *was* a place for the Jews in this society which did not depend upon their losing their group identity.

They discovered that they possessed something precious to bring to the broader American culture, on the lowest as well as on the highest levels of human activity, and that it would have a creative impact far beyond the Jewish community. Many had not only to learn the language but, more wonderful, they had to discover that the Jewish American idiom would lend a whole new dimension to the American language.

How do the situations of the Negro and Jewish writers differ?

I think that Negro Americans as *writers* run into certain problems which the Jews don't have. One is that our lives, since slavery, have been described mainly in terms of our political, economic, and social conditions as measured by outside norms, seldom in terms of our *own* sense of life or our *own* sense of values gained from our *own* unique American experience. Nobody bothered to ask Negroes how they felt about their own lives.

Southern whites used to tell the joke about the white employer who said to a Negro worker, "You're a good hand and I appreciate you. You make my business go much better. *But*, although you work well every day, I can never get you to work on Saturday night, even if I offer to pay you overtime. Why is this?"

Of course, you know the answer: "If you could just be a Negro one Saturday night you'd never want to be a white man again."

Now this is a rather facile joke, and a white Southern joke on Negroes; nevertheless, it does indicate an awareness that there is an internality to Negro American life, that it possesses its own attractions and its own mystery.

The pathetic element in the history of Negro American writing is that it started out by reflecting the styles popular at the time, styles uninterested in the human complexity of Negroes. These were the styles of dialect humour transfused into literature from the *white* stereotype of the Negro minstrel tradition. This was Dunbar and Chestnutt. It helped them get published, but it got in the way of their

subject matter and their goal of depicting Negro personality. And these were times when white publishers and the white reading public only wished to encounter certain types of Negroes in poetry and fiction.

Even so, it was not a Negro writer who created the most memorable character in this tradition, but Mark Twain, whose Nigger Jim is, I think, one of the important characters in our literature. Nevertheless, Jim is flawed by his relationship to the minstrel tradition. Twain's drawing of Jim reflected the popular culture of the 1880's, just as the Negro characters you get in much of current fiction are influenced by the stereotypes presented by the movies and by sociology—those even more powerful media of popular culture.

The Negro writers who appeared during the 1920's wished to protest discrimination; some wished to show off their high regard for respectability; they wished to express their new awareness of the African background, and, as Americans trying to win a place as writers, they were drawn to the going style of literary decadence represented by Carl Van Vechten.

This was an extremely ironic development for a group whose written literature was still in its infancy—as incongruous as the notion of a decadent baby. More ironic, this was a time when Eliot, Pound, Hemingway, and Stein were really tearing American literature apart and reshaping its values and its styles in the “revolution of the word.”

We always picked the moribund style. We took to dialect at a time when *Benito Cereno*, *Moby Dick*, and *Leaves of Grass* were at hand to point a more viable direction for a people whose demands were revolutionary, and whose humanity had been badly distorted by the accepted styles.

During the 1930's we were drawn, for more understandable reasons, to the theories of proletarian literature. So during the twenties we had wanted to be fashionable and this insured, even more effectively than the approaching Depression, the failure of the “New Negro” movement. We fell into that old trap by which the segregated segregate themselves by trying to turn whatever the whites said against us into its opposite.

If they said Negroes love fried chicken (and why shouldn't we?), we replied, “We *hate* fried chicken.” If they said “Negroes have no normal family life,” we replied, “We have a staidier, more refined, more puritanical family life than you.”

With few exceptions, our energies as writers have too often been focused upon outside definitions of reality, and we've used literature for racial polemics rather than as an agency through which we might define experience as we ourselves have seen and felt it.

INTERVIEW WITH RALPH ELLISON

Indeed, it's very difficult, even today, for younger Negro writers to overcome these negative tendencies. Far too often they have been taught to think in Jim Crow terms: "I can do thus and so—not because human beings express themselves in these ways, but because such and such a *Negro* dared to do so." And if no other Negro has involved himself in the activity in question, then we tend to draw back and doubt that we might do well even as pioneers.

And so the younger writer tries to use the models of other Negro writers rather than the best writers regardless of race or class—completely ignoring the fact that all other writers try to pattern themselves on the achievements of the greatest writers, regardless of who they were.

This is how the Jim Crow experience has gotten into our attitudes and set us back. We have been exiled in our own land and, as for our efforts at writing, we have been little better than silent because we have not been cunning.

I find this rather astounding, because I feel that Negro American folklore is powerful, wonderful, and universal. And it became so by expressing a people who were assertive, eclectic, and irreverent before all the oral and written literature that came within its grasp. It took what it needed to express its sense of life and rejected what it couldn't use.

But what we've achieved in folklore has seldom been achieved in the novel, the short story, or poetry. In folklore we tell what Negro experience really is. We back away from the chaos of experience and from ourselves, and we depict the humour as well as the horror of our living. We project Negro life in a metaphysical perspective and we have seen it with a complexity of vision that seldom gets into our writing.

One reason for this lies in the poor teaching common to our schools and colleges, but the main failure lies, I think, in our simple-minded attempt to reduce fiction to a mere protest.

I notice that you mentioned, quite some time ago, that you learned a lot of skill under Richard Wright. Do you find that he gauged his craft to the great writers of the world?

He certainly tried to do so. He was constantly reading the great masters, just as he read the philosophers, the political theorists, the social and literary critics. He did not limit himself in the manner that many Negro writers currently limit themselves. And he encouraged other writers—who usually rebuffed him—to become conscious

craftsmen, to plunge into the world of conscious literature and take their chances unafraid. He felt this to be one of the few areas in which Negroes could be as free and as equal as their minds and talents would allow. And like a good Negro athlete, he believed in his ability to compete.

In 1940 he was well aware that *Native Son* was being published at a time when *The Grapes of Wrath* and *For Whom the Bell Tolls* would be his main competition. Nevertheless, he looked towards publication day nervously but eagerly. He wished to be among the most advanced artists and was willing to run the risk required.

Earlier you referred to the minstrel as a stereotype. Is it possible to treat such stereotypes as Sambo, or even Stepin Fetchit, as archetypes or motives instead of using them in the usual format?

In fiction stereotypes partake of archetypes. And to the extent that stereotypes point to something basically human, they overlap. In literary form stereotypes function, as do other forms of characterization, as motives. But the point is that they act as *imposed* motives which treat reality and character arbitrarily. Thus to redeem them as you suggest, the writer is challenged to reveal the archetypal truth hidden within the stereotype.

Here archetypes are embodiments of abiding patterns of human existence which underlie racial, cultural, and religious differences. They are, in their basic humanity, timeless and raceless; while stereotypes are malicious reductions of human complexity which seize upon such characteristics as colour, the shape of a nose, an accent, hair texture, and convert them into emblems which render it unnecessary for the prejudiced individual to confront the humanity of those upon whom the stereotype has been imposed.

So in answer to your question as to whether it is possible to use such stereotypes as Sambo and Stepin Fetchit, I'd say that it depends upon the writer's vision. If I should use such stereotypes in fiction, I'd have to reveal their archetypal aspects because my own awareness *of*, and identification *with*, the human complexity which they deny would compel me to transform them into something more recognizably human. To do less would be to reveal a brutalization of my own sense of human personality.

On the other hand, consider Faulkner. When Lucas Beauchamp first appears in Faulkner's work he appears as a stereotype, but as he was developed throughout the successive novels, he became one of Faulkner's highest representatives of human quality.

INTERVIEW WITH RALPH ELLISON

Or again, when Ned in the last book, *The Reivers*, is seen superficially he appears to be the usual head-scratching, eye-rolling Negro stereotype. But beneath this mask, Ned is a version of John, the archetypical Negro slave of Negro folklore, who always outwits and outtalks his master. Ned masterminds the action of the novel and in so doing he is revealed as Faulkner's own persona. He is the artist disguised as Negro rogue and schemer.

This suggests that attempts to approach stereotypes strictly in racial terms is, for the Negro writer, very dangerous. We must first question what they conceal, otherwise we place ourselves in the position of rejecting the basic truth concealed in the stereotype along with its obvious falsehood. Truth is much too precious for that.

What's inside you, brother; what's your heart like? What are your real values? What human qualities are hidden beneath your idiom?

Do you think the reason for this is that Negroes in the U.S. are caught, if they allow themselves to be, in a bind? Do you think that the Negro writer then is forced, sometimes, to go away to gain a perspective? Or can he transcend his situation by remaining in it?

Well, again, I say that the individual must do that which is necessary for him individually. However, I also say that it is not objectively necessary to go away. He might solve his problem by leaving the Village or by leaving Harlem. Harlem has always been a difficult place for Negroes to gain perspective on the national experience, because it has sponsored a false sense of freedom. It has also sponsored a false sense of superiority regarding Negroes who live elsewhere.

One frees oneself, as a writer, by actually going in and trying to get the shape of experience *from the writer's perspective*. I see no other way. But this, unfortunately, requires a writer's type of memory—which is strongly emotional and associative—and a certain amount of technique.

You must pay the Negro community the respect of trying to see it through the enriching perspectives provided by great literature—using your own intelligence to make up for the differences in economy, in class background, in education, in conscious culture, in manners, and in attitude towards values. Human beings are basically the same and differ mainly in life style. Here revelation is called for, not argument.

How do you mean, "argument"?

I mean that it's futile to argue our humanity with those who wilfully

refuse to recognize it, when art can reveal in its own terms more truth while providing pleasure, insight, and, for Negro readers at least, affirmation and a sense of direction. We must assert our own sense of values, beginning with the given and the irrevocable, with the question of heroism and slavery.

Contrary to some, I feel that our experience as a people involves a great deal of heroism. From one perspective, slavery was horrible and brutalizing. It is said that "Those Africans were enslaved, they died in the 'middle passage,' they were abused, their families were separated, they were whipped, they were raped, ravaged, and emasculated." And the Negro writer is tempted to agree. "Yes! God damn it, wasn't that a horrible thing!"

And he sometimes agrees to the next step, which holds that slaves had very little humanity because slavery destroyed it for them and their descendants.

But despite the historical past and the injustices of the present, there is from *my* perspective something further to say. I have to *affirm* my forefathers and *must* affirm my parents or be reduced in my own mind to a white man's inadequate—even if unprejudiced—conception of human complexity. Yes, and I must affirm those unknown people who sacrificed for me.

I'm speaking of those Negro Americans who never knew that a Ralph Ellison might exist, but who by living their own lives and refusing to be destroyed by social injustice and white supremacy, real or illusory, made it possible for me to live my own life with meaning. I am forced to look at these people and upon the history of life in the U.S. and conclude that there is another reality behind the appearance of reality which they would force upon us as truth.

Any people who could endure all of that brutalization and keep together, who could undergo such dismemberment and resuscitate itself, and endure until it could take the initiative in achieving its own freedom is obviously more than the sum of its brutalization. Seen in this perspective, theirs has been one of the great human experiences and one of the great triumphs of the human spirit in modern times. In fact, in the history of the world.

Some might say to your argument that you are expressing your own hopes and aspirations for Negroes, rather than reporting historical reality.

But hope and aspiration are indeed important aspects of the reality of Negro American history, no less than that of others. Besides, it's one of our roles as writers to remind ourselves of such matters, just as

it is to make assertions tempered by the things of the spirit. It might sound arrogant to say so, but writers, poets, help create or reveal hidden realities by asserting their existence. Otherwise they might as well become social scientists.

I do not find it a strain to point to the heroic component of our experience, for these seem to me truths which we have long lived by but which we must now recognize consciously. And I am not denying the negative things which have happened to us and which continue to happen, but I am compelled to reject all condescending, paternalistic interpretations of Negro American life and personality from whatever quarters they come, whether white or Negro. Such interpretations would take the negative details of our existence and make them the whole of our life and personality.

But literature teaches us that mankind has always defined itself *against* the negatives thrown it by both society and the universe. It is human will, human hope, and human effort which make the difference. Let's not forget that the great tragedies not only treat of negative matters, of violence, brutalities, defeats, but they treat them within a context of man's will to act, to challenge reality and to snatch triumph from the teeth of destruction.

You said it's unnecessary for one to leave the country to get a perspective. We notice in some of your older writings that after having come back from Rome you went to New Hampshire and wrote Invisible Man.

No, I started *Invisible Man*—that novel about a man characterized by what the sociologists term "high visibility"—in Vermont, during the few months before the war came to an end. I was cooking on merchant ships at the time and had been given shore leave, so I accepted the invitation of a friend and went there. I had no idea that I was going to start a book.

But maybe I should add this: It isn't *where* you are that's important, but what you seek to depict, and most important of all is perspective. And the main perspective through which a writer looks at experience is that provided by literature—just as the perspective through which a physician looks at the human body is the discipline of medicine; an accumulation of techniques, insights, instruments, and processes which have been slowly developed over long periods of time.

So when I look at my material I'm not looking at it simply through the concepts of sociology—and I do know something about sociology. I look at it through literature: English, French, Spanish, Russian—

especially nineteenth-century Russian literature. And Irish literature, Joyce and Yeats, and through the international literature of the 'twenties. And through the perspective of folklore.

When I listen to a folk story I'm looking for what it conceals as well as what it states. I read it with the same fulness of attention I bring to *Finnegans Wake* or the *Sound and the Fury* because I'm eager to discover what it has to say to me personally.

Living abroad is necessary for those Negro writers who feel that they've been too cramped here and who wish to discover how it feels to live free of racial restrictions. This is valid.

I should also say this: I came to New York from Tuskegee with the intention of going back to finish college. I came up to work. I didn't earn the money so I stayed. But while I lived at the Harlem YMCA I did *not* come to New York to live in Harlem—even though I thought of Harlem as a romantic place.

I'm pointing to an attitude of mind; I was not exchanging Southern segregation for Northern segregation, but seeking a wider world of opportunity. And, most of all, the excitement and impersonality of a great city. I wanted room in which to discover who I was.

So one of the first things I had to do was to enter places from which I was afraid I might be rejected. I had to confront my own fears of the unknown. I told myself, "Well, I might be hurt, but I won't dodge until they throw a punch." Over and over again, I found that it was just this attitude (which finally became unself-consciously non-defensive) which made the difference between my being accepted or rejected, and this during a time when many places practised discrimination.

This requires submitting oneself to personal ordeals, especially if one grew up in the South and Southwest. Nor is this because you are afraid of white people so much as a matter of not wishing to be rebuffed.

What do you consider the Negro writer's responsibility to American literature as a whole?

The writer, *any* American writer, becomes basically responsible for the health of American literature the moment he starts writing seriously. And this regardless of his race or religious background. This is no arbitrary matter.

Just as there is implicit in the act of voting the responsibility of helping to govern, there is implicit in the act of writing a responsibility for the quality of the American language—its accuracy, its vividness, its simplicity, its expressiveness—and responsibility for preserving and

extending the quality of the literature.

How do you regard President Johnson's statement that "Art is not a political weapon"? He made it at the White House in 1965.

I don't think you've got it complete; let's read it. He said, "Your art is not a political weapon, yet much of what you do is profoundly political, for you seek out the common pleasures and visions, the terrors and cruelties of man's day on this planet. And I would hope you would help dissolve the barriers of hatred and ignorance which are the source of so much of our pain and danger."

You think that he is far ahead of many people?

He is far ahead of most of the intellectuals—especially those Northern liberals who have become, in the name of the highest motives, the new apologists for segregation. President Johnson's speech at Howard University spelled out the meaning of full integration for Negroes in a way that no one, no President, not Lincoln nor Roosevelt, no matter how much we loved and respected them, has ever done before. There was no hedging in it, no escape clauses.

Do you think that writers, generally, band together for the added stimulation or appreciation that they need? Or do you think that it is a lack, on their part, of a certain kind of intelligence?

It depends upon their reason for coming together. I think it very important for writers to come together during the early stages of their careers, especially during the stage when they are learning their techniques, when they are struggling for that initial fund of knowledge upon which they form their tastes and upon which artistic choices are made. And it's good for artists to get together to eat and drink—for social activities. But when they get together in a political effort it usually turns out that they are being manipulated by a person or group of persons who are not particularly interested in art.

Do you see a parallel between the 'thirties and the 'sixties, with this new resurgence of young Negro writers, with this turning towards Africa and, shall we say again, the resurgence of a particular kind of provincialism in New Negro writing?

I think that we should be very careful in drawing parallels. This is

a period of affluence as against the poverty of the Depression. During that period a lot of Negroes had the opportunity to work in WPA at clerical jobs and so on, so that for us the Depression represented in many ways a lunge forward. We were beneficiaries of the government's efforts towards national recovery.

Thanks to the national chaos, we found new places for ourselves. Today, our lunges forward are facilitated by laws designed precisely to correct our condition as a group—by laws which start at the very top and which have the Supreme Court, the Executive branch, and Congress behind them. This is quite different from the 'thirties.

As to Africa, I think it probably true that more of the present crop of writers are concerned with Africa than was true during that period. In fact, quite a number who were concerned with communism are now fervid black nationalists.

Oddly enough, however, their way of writing hasn't changed significantly. Of course, I might not know what I'm talking about, but there seem to be fewer Negro writers around who seem publishable at the moment. Surely there are fewer than the more favourable circumstances of today warrant.

Some people think that you should play a larger part in civil rights.... This is similar to Sartre's rebuttal to Camus in Situations, this idea of "engagement."

Well, I'm no Camus and they're no Sartres. But literature draws upon much deeper and much more slowly changing centres of the human personality than does politics. It draws mainly from literature itself, and upon the human experience which has abided long enough to have become organized and given significance through literature. I think that revolutionary political movements move much too rapidly to be treated as the subjects for literature in themselves.

When Malraux drew upon revolution as the settings for his novels he drew for his real themes upon much deeper levels of his characters' consciousness than their concern with Marxism; and it is to these deeper concerns, to the realm of tragedy, that they turned when facing death.

Besides, political movements arise and extend themselves, achieve themselves, through fostering myths which interpret their actions and their goals. And if you tell the truth about a politician, you're always going to encounter contradiction and barefaced lies—especially when you're dealing with left-wing politicians.

If I were to write an account of the swings and twitches of the U.S.

Communist line during the 'thirties and the 'forties, it would be a very revealing account, but I wouldn't attempt to do this in terms of fiction. It would have to be done in terms of political science, reportage.

You would have to look up their positions, chart their moves, look at the directives handed down by the Communist International—whatever the overall body was called. And you would be in a muck and a mire of dead and futile activity—much of which had little to do with their ultimate goals or with American reality. They fostered the myth that communism was twentieth-century Americanism, but to be a twentieth-century American meant, in their thinking, that you had to be more Russian than American and less Negro than either. That's how they lost the Negroes.

The Communists recognized no plurality of interests and were really responding to the necessities of Soviet foreign policy, and when the war came, Negroes got caught and were made expedient in the shifting of policy. Just as Negroes who fool around with them today are going to get caught in the next turn of the screw.

Do you think there is too much pressure on the Negro writer to play the role of politician, instead of mastering his craft and acting as a professional writer?

Yes, and if he doesn't resist such pressure he's in a bad way. Because someone is always going to tell you that you can't write, and then they tell you *what* to write.

Resisting these warnings is important. And if you deflect this particular pressure, there will always be people who will tell you that you have no talent.

We understand the psychological dynamics of it. If a Negro threatens to succeed in a field outside the usual areas of Negro professionals, others feel challenged. It's a protective reaction, a heritage from slavery. He has a nerve to do that—I don't have the nerve to do that; what does he think he's doing, endangering the whole group? Nevertheless, the writer must endure the agony imposed by this group pessimism.

Why do you think this exists?

Because our sense of security and our sense of who we are depend upon our feeling that we can account for each and every member of the group. And to this way of thinking any assertion of individuality

is dangerous. I'm reminded of a woman whom I met at a party. We were discussing Negro life and I uttered opinions indicating an approach unfamiliar to her. Her indignant response was, "How do you come talking like that? I never even heard of you!"

In her opinion I had no right to express ideas which hadn't been certified by her particular social group. Naturally, she thought of herself as a member of a Negro elite and in the position to know what each and every Negro thought and should think. This is a minority group phenomenon, and I won't nail it to Negroes because it happens in the Jewish community as well.

In the interview that you had in Robert Penn Warren's Who Speaks for the Negro? he addressed a question to you that has something to do with Negroes being culturally deprived, and you answered that many of the white students whom you'd taught were also culturally deprived. They were culturally deprived, you said, because while they might have understood many things intellectually, they were emotionally unprepared to deal with them. But the Negro was being prepared emotionally, whether intellectually or not, from the moment he was placed in the crib. Would you expand that a bit?

I am tired of critics writing of me as though I don't know how hard it is to be a Negro American. My point is that it isn't *only* hard, that there are many, good things about it.

But they don't want you to say that. This is especially true of some of our Jewish critics. They are upset when I say: *I like this particular aspect of Negro life and would not surrender it. What I want is something else to go along with it.*

And when I get the other things, I'm not going to try to invade the group life of anybody else. And, of course, they don't like the idea that I reject many of the aspects of life which they regard highly.

But white people can get terribly disturbed at the idea that Negroes are not simply being restricted from many areas of our national life, but are also judging certain aspects of American culture and rejecting white values. That's where assumptions of white superiority, conscious or unconscious, make for blindness and naivete. For in fact Negroes rejected many white values from the days before there were Jim Crow laws.

Only a narrowly sociological explanation of society could lead to the belief that we Negroes are what we are simply because whites would refuse us the right of choice through racial discrimination. Frequently Negroes are able to pay for commodities available in the

stores, but we reject them as a matter of taste—not economics.

There is no *de facto* Jim Crow in many areas of New York, but we don't frequent them, not because we think we won't be welcome—indeed many Negroes go to places precisely because they are unfairly and illegally rejected—but because they simply don't interest us.

Negro Americans had to learn to live under pressure—otherwise we'd have been wiped out, or put on a reservation and rendered powerless by the opposing forces.

Fortunately, our fate was different. We were forced into segregation, but within that situation we were able to live close to the larger society and to abstract from that society enough combinations of values—including religion and hope and art—which allowed us to endure and impose our own idea of what the world should be and of what man should be, and of what American society should be. I'm not speaking of power here, but of vision, of values and dreams. Yes, and of will.

What is missing today is a corps of artists and intellectuals who would evaluate Negro American experience from the inside, and, out of a broad knowledge of how people of other cultures live, deal with experience, and give significance to their experience. We do too little of this. Rather we depend upon outsiders—mainly sociologists—to interpret our lives for us.

It doesn't seem to occur to us that our interpreters might well be not so much prejudiced as ignorant, insensitive, and arrogant. It doesn't occur to us that they might be of shallow personal culture, or innocent of the complexities of actual living.

It's ironic that we act this way, because over and over again when we find Negroes enjoying themselves, when they're in a mood of communion, they sit around and marvel at what a marvellous human being, what a confounding human type the Negro American really is.

This is the underlying significance of so many of our bull sessions. We exchange accounts of what happened to someone whom the group once knew. "You know what that so-and-so did," we say; and then his story is told. His crimes, his loves, his outrages, his adventures, his transformations, his moments of courage, his heroism, buffooneries, defeats, and triumphs are recited with each participant joining in. And this catalogue soon becomes a brag, a very exciting chant celebrating the metamorphosis which this individual in question underwent within the limited circumstances available to us.

This is wonderful stuff; in the process the individual is enlarged. It's as though a transparent overlay of archetypal myth is being placed over the life of an individual, and through him we see ourselves.

This, of course, is what literature does with life; these verbal jam sessions are indeed a form of folk literature and they help us to define our own experience.

But when we Negro Americans start "*writing*," we lose this wonderful capacity for abstracting and enlarging life. Instead we ask, "How do we fit into the sociological terminology? Gunnar Myrdal said this experience means thus and so. And Dr. Kenneth Clark, or Dr. E. Franklin Frazier, says the same thing..." And we try to fit our experience into their concepts.

You have said that Hemingway tells us much more about how Negroes feel than all the writings done by those people mixed up in the Negro Renaissance.

What I meant was this: Hemingway's writing of the 'twenties and the 'thirties—even of the 'forties—evoked certain basic, deeply felt moods and attitudes within his characters which closely approximated certain basic attitudes held by many Negroes in regard to their position in American society, and in regard to their sense of the human predicament.

And he did this not only because he was a greater writer than the participants in the Negro Renaissance, but because he possessed a truer sense of what the valid areas of perplexity were and a more accurate sense of how to get life into literature. He recognized that the so-called "Jazz Age" was a phoney, while most Negro writers jumped on that illusory bandwagon when they, of all people, should have known better.

I was also referring to Hemingway's characters' attitude towards society, to their morality, their code of technical excellence, to their stoicism, their courage or "grace under pressure," to their scepticism as to the validity of political rhetoric and all those abstractions in the name of which our society was supposed to be governed, but which Hemingway found highly questionable when measured against our actual conduct.

Theirs was an attitude springing from an awareness that they lived outside the values of the larger society, and *I* feel that their attitudes came close to the way Negroes felt about the way the Constitution and the Bill of Rights were applied to us.

Further, I believe that Hemingway, in depicting the attitudes of athletes, expatriates, bullfighters, traumatized soldiers, and impotent idealists, told us quite a lot about what was happening to that most representative group of Negro Americans, the jazz musicians—who also

lived by an extreme code of withdrawal, technical and artistic excellence, rejection of the values of respectable society. They replaced the abstract and much-betrayed ideals of that society with the more physical values of eating, drinking, copulating, loyalty to friends, and dedication to the discipline and values of their art.

Now I say all this while fully aware that Hemingway seldom depicted Negroes and that when he did they were seldom the types we prefer to encounter in fiction. But to see what I mean one has only to look upon the world of Hemingway's fiction as offering a valid metaphor not only for the predicament of young whites, but as a metaphor for the post-World War I period generally. Seen in this inclusive light, he tells us a hell of a lot about the way Negroes were feeling and acting.

At any rate, this is how I use literature to come to an understanding of our situation. It doesn't have to be *about* Negroes in order to give us insights into our own predicament.

Faulkner tells us a great deal about many different groups who were not his immediate concern because he wrote so truthfully. If you would find the imaginative equivalents of certain civil-rights figures in American writing, you don't go to most fiction by Negroes, but to Faulkner.

You have said that you don't accept any theory which implies that culture is transmitted through the genes. What, then, is your reaction to the concept of "negritude"?

To me it represents the reverse of that racism with which prejudiced whites approach Negroes. As a theory of art it implies precisely that culture is transmitted through the genes. It is a blood theory.

There are members of my family who are very black people, and there are some who are very white—which means that I am very much Negro, very much Negro American, and quite representative of that racial type with its mixture of African, European, and indigenous American blood.

This is a biological fact; but recognizing this, and loving my family, and recognizing that I'm bound to them by blood and family tradition is by no means to agree with the proponents of negritude. Because even while I affirm our common blood line I recognize that we are bound less by blood than by our cultural and political circumstances.

I've been reading the classics of European and American literature since childhood, was born to the American tongue and to the language of the Bible and the Constitution; these, for better or worse, shaped my thought and attitudes and pointed the direction of my talent long

before I became a conscious writer. I also inherited a group style originated by a "black" people, but it is Negro American, not African. And it was taught to me by Negroes or copied by me from those among whom I lived most intimately.

What advice would you give to a young person of eighteen who is setting out to be a writer?

My first advice would be to make up his mind to the possibility that he might have to go through a period of depriving himself in order to write. I'd remind him that he was entering into a very stern discipline, and that he should be quite certain that he really wanted to do this to the extent of arranging his whole life so that he could get it done. He should regard writing very much as a young physician is required to regard his period of training.

Next, I'd advise him to read everything, all the good books he can manage, especially those in the literary form in which he desires to become creative. Because books contain the culture of the chosen form and because one learns from the achievements of other writers. Here is contained the knowledge which he must have at his fingertips as he projects his own vision. And because without it, no matter how sensitive, intelligent, or passionate he is, he will be incomplete.

Beyond that, he shouldn't take the easy escape of involving himself exclusively in *talking* about writing, or carrying picket signs, or sitting-in as a substitute activity. Because while he might become the best picket in the world, or the best sitter-inner, his writing will remain where he left it.

Finally, he should avoid the notion that writers require no education. Very often Hemingway and Faulkner are summoned up to support this argument, because they didn't finish college. What is overlooked is that these were very gifted, very brilliant men. And very well-read men of great intellectual capacity.

So no matter how you acquire an education, you must have it. You must know your society and know it beyond your own neighbourhood or region. You must know its manners and its ideals and its conduct. And you should know something of what's happening in the sciences, in religion, in government, and in the other arts.

I suppose what I'm saying is that he should have a working model of the society and of the national characteristics present within his mind. The problem of enriching that model and keeping it up to date is one of the greatest challenges to the Negro writer, who is, by definition, cut off from firsthand contact with large areas of the society—especially

INTERVIEW WITH RALPH ELLISON

from those centres where power is translated into ideas and into manners and into values.

Nevertheless, this can be an advantage, because in this country no writer should take anything for granted, but must use his imagination to question and penetrate the facade of things. Indeed, the integration of American society on the level of the imagination is one of his basic tasks. It is one way in which he is able to possess his world and, in his writings, help shape the values of large segments of the society which otherwise would not admit his existence, much less his right to participate or to judge.

RALPH ELLISON'S *memorable first novel*, *Invisible Man*, *winner of the National Book Award for 1952*, *brought him immediately to the front rank of American writers*. His essay, "*Harlem Is Nowhere*," appeared in *Harper's* in 1964, and was included in his book of essays and reviews, *Shadow and Act*.

Ellison is a native of Oklahoma City. In 1933 he went to the Deep South to Tuskegee Institute in Alabama, where he majored in music. Later he came to New York City to study sculpture, but he turned to writing and since 1939 his stories and articles have been widely published.

STUDENTS AND FREEDOM

RICHARD HOFSTADTER

WE STAND AT A DECISIVE MOMENT in the demand for student freedoms. The current crisis stems, in part, from the vast extension of higher education and the response of students to bigness.

But in greater measure it comes from our moral crisis—a moral crisis stemming from the issue of racial justice and from the war in Vietnam. We are in a period of student agitation in which the limits of student freedoms will be tested and in which, if we are wise and fortunate, their proper nature will be defined.

To Grow in Mind and Spirit

The basic justification for student freedoms is very much like that invoked to justify faculty freedoms. It is not the promise that freedom for students will reform our society. Social reform is not the fundamental business of universities, even though they contribute to it.

Students do not come to the university solely to be instructed in vocational skills. They come to grow in mind and spirit, to develop their questioning and critical faculties, to develop independence and individuality in life and belief.

For the student, freedom in the classroom means:

*The right to be spared ruthless indoctrination;
The right to differ from an instructor in a reasonable and orderly
manner on matters of opinion;
The right to have his work evaluated without prejudice;
The right to have his opinions treated as confidential.*

His rights as a citizen include:

*Freedom of association;
Free choice in speakers;*

Freedom from unreasonable and arbitrary limitations on student publications;

The right, if his activity brings him into conflict with the law, not to have civil penalties compounded by academic penalties;

The right, when charged with punishable infractions of academic rules, to due process of academic law.

Freedom and Responsibility

It will be less difficult to win general endorsement for these principles than to apply them on the campuses of the country. Conflict in application is inevitable, and if it is not carried to unproductive lengths by those who value conflict for its own sake, its costs will be borne with patience.

On campuses where there is a genuine feeling of community and of obligation, it will be possible to apply these principles without disastrous wrangling. Patience and tenacity are required of university officials and staffs; a sense of restraint in students. And restraint does not mean superhuman self-control, but only the assumption of the responsibilities that go with freedom.

The academic freedom of the student, like that of the instructor, has its boundaries, which do not limit the content of his thought but may limit his lines of action. The freedom of the student as a citizen, for example, does not embrace the right to involve the university either openly or by indirection, in his personal political commitments.

His rights certainly extend, if he so chooses, to protesting in an orderly way against the policies of the university itself, or against its rules, or the procedures by which these rules are made and enforced. They do not embrace the right to break the rules, which he implicitly promises to observe when he enters the university community.

He may hope for—and I trust he will normally receive—generous treatment if he strays into a single, impulsive infraction; but he can hardly expect that repeated and planned violations will carry no penalties.

Freedom Is Self-Imposed Restraint

The delicate thing about freedom is that while it requires restraints, it also requires that many of these restraints be self-imposed. The delicate thing about the university is that it has a mixed character. It is suspended between its position in the real world, with its corruptions and evils and cruelties, and the splendid world of our own imagination.

The university does in fact perform services to society—and there are those who think it should aspire to do nothing else. It does in fact constitute a political forum—and there are those who want to convert it primarily into a centre of political action.

But above these aspects of its existence stands its essential character as a centre of free inquiry and criticism—a thing not to be sacrificed for anything else. A university is not a service station; nor a political society; nor a meeting place for political societies.

It is, with all its limitations and failures, its fragile and compromised professors, its equivocal administrators, its tumultuous and self-righteous students, its classified research, its instruction that does not instruct, and all the other ills that academic life is heir to, the best and most benign embodiment of our society—insofar as that society aims to cherish the human mind.

To realize its essential character, the university has to be dependent upon something less precarious than the momentary balance of forces in society. It has to pin its faith not merely upon critical intelligence but upon self-criticism and self-restraint.

There is no group of professors, or administrators, or taxpayers, or alumni, or students; there is no class or interest in our society, that ought to consider itself exempt from bearing the costs of the university and patiently enduring its conflicts and trials. Nor is there anyone who should want to do other than rally to its generous support.

RICHARD HOFSTADTER, *Pulitzer Prize winner, is Professor of History at Columbia University. He was one of three main speakers who appeared at the "extraordinary convocation" of the University of California Academic Senate in the Greek Theatre on April 28. The article is a portion of Dr Hofstadter's address.*

BOOK WORLD

SOCIAL CHANGE IN MODERN INDIA

by M. N. Srinivas

xv plus 194 pp. University of California Press,
Berkeley and Los Angeles, 1966. \$5.00

Reviewed by I. P. Desai

Social Change in Modern India was the theme of the Tagore lectures delivered by Professor Srinivas at Chicago in 1963. The theme is of importance to the policymakers in India and the social scientists interested in the problems of change. Srinivas asks the question: What are the orientations of change in India? As is generally agreed, these are two—(1) Indian and (2) exogenous, in this case Western.

The Indian orientations are towards India's past or what is generally called traditional Indian society and culture. The Western orientations are towards the contempo-

rary and recent Western society, particularly the nineteenth-century British society. Srinivas calls them Sanskritization and Westernization respectively. He defines them by delimitation of their behavioural aspects, the former rather strictly or less vaguely than the latter.

Sanskritization, according to him, is the "process by which a low Hindu caste or tribal or other group changes its customs, ritual, ideology, and way of life in the direction of a high and frequently twice-born caste." His focus is stratification and mobility, and the behaviour pertaining to these two remains his empirical referent.

By Westernization, he means that which characterizes "the changes brought about in Indian society and culture as a result of over

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150 years of British rule and the term subsumes changes occurring at different levels—technology, institutions, ideology, or values.” Srinivas is aware that the term is vague and omnibus.

But the differences in the points and areas of observation of these two terms create difficulty for “the complex and intricate interrelations between Sanskritization and Westernization,” which he correctly says is a fertile field for analysis and speculation. Sanskritization and Westernization do not move on parallel roads. At every point they cut each other, and the resultant pattern may be neither one nor the other. If this pattern is to be identified and analysed, much more refinement and precision are necessary.

Srinivas characterizes the resultant pattern in cultural terms as “one of the results of a century of Westernization—Secularization is subsumed under Westernization—is reinterpreted Hinduism in which Sanskritic elements are predominant.”

According to him, the most important value preference in Westernization was humanitarianism which subsumes several other values such as equalitarianism and secularism. Srinivas’s position is that the Hindu “tradition of tolerance, syncretism, and self-criticism” received the value of Western humanitarianism and began to embody it in the “legal, political, educational, and other institutions” in India in the late nineteenth century.

This was done through the agency of the Westernized Indian intellectual elite. Srinivas

supports this position with a wealth of behavioural material. At this point, one thinks that the social-psychological study of personality would be a fruitful area of research.

The emerging pattern of a social system, according to Srinivas, is not Western though influenced by the whole gamut of forces of Westernization. His focus is on the stratificatory system as required by his definition of Sanskritization. The traditional stratificatory system—the caste system—was more mobile and less rigid than is generally believed. This is a contention with which many will not quarrel today.

The question is: Is it being replaced by an open stratificatory system due to the forces of Westernization? Srinivas’s answer is that “changes of fundamental kind are occurring. But it cannot be described as a simple movement from a closed to an open system of stratification” and “caste continues to be relevant in subtle and indirect ways, in such mobility.”

This is true, but how much longer will it be correct to say that the position of a person today is determined by the position of his caste in the traditional hierarchy? The portents are that it is not the backward position of the caste but the economic and educational backwardness that stands in the way of an individual’s mobility.

One may agree with or differ from Srinivas, but he deserves to be congratulated for the issues that he raises, the light he throws on them, and the new angles that he provides.

BOOK NOTES

These brief reviews are of books available at American Libraries in New Delhi, Bombay, Calcutta, Madras, Bangalore, Hyderabad, Lucknow, Trivandram, Guntur, and Patna.

BEST SPORTS STORIES 1966: A Panorama of the 1965 Sports World. Edited by Irving T. Marsh and Edward Ehre. Dutton. 1966. 336 pp. This twenty-second annual collection contains fifty-one of the best newspaper and magazine articles on sports and thirty of the year's best sport photographs. The sports represented are baseball, football, boxing, basketball, golf, horse racing and auto racing, track and field, hockey, and skiing. Included is a list of 1965's champions of sports events throughout the world, brief biographical sketches of the authors, and an alphabetical list of the photographs.

URBANIZATION IN NEWLY DEVELOPING COUNTRIES. By Gerald William Breese. Prentice. 1966. 151 pp. This broad examination of city conditions in developing areas outlines the problems which confront rural populations and pre-industrial economies in trying to develop and support the urban society which is necessary for development.

NEGRO PROTEST THOUGHT IN THE TWENTIETH CENTURY. Edited by Francis L. Broderick and August Meier. Bobbs. 1965. 444 pp. This copious collection of original materials by American Negroes is likely to remain the authoritative review of modern Negro protest thought for several years, containing important pre-1960 pronouncement and a good sampling of 1960-65 opinions of Civil Rights leaders.

CLASSROOMS ON MAIN STREET. By Harold Florian Clark and Harold Stephenson Sloan. Teachers

College, Columbia University. 1966. 162 pp. This study places in perspective 35,000 specialty schools which grant certificates rather than degrees, preparing students for a particular position in business, industry, skilled trade, semi-profession, personal and protective service, or recreational activity. The authors relate the development of these schools and explain their regulation and worth in the educational pattern.

TECHNOLOGICAL INNOVATION AND SOCIETY: Columbia University Seminar on Technology and Social Changes. Edited by Dean Morse and Aaron W. Warner. Columbia. 1966. 214 pp. In a series of meetings at Columbia University a group of physical and social scientists and businessmen grappled with the problems of providing the peoples of the world with satisfactory standards of living. Statements by scientists in industry and the universities and edited transcripts of discussion of the papers describe "the human condition and its problems with clarity and in a humanitarian spirit."

BLUEPRINT FOR PEACE: White House Conference on International Cooperation. McGraw. 1966. 416 pp. The various reports in this volume are concerned with: Curbing the Arms Race; Keeping the Peace; Developing International Law; Protecting Human Rights; Promoting Cultural Exchange; Containing the Population Explosion; Conserving the World's Resources; Assisting Economic Development; Strengthening International Finance; Expanding World Trade; Helping the World's Cities; Exploring Outer Space; Using Science and Technology;

Harnessing the Peaceful Atom; "Doing Something" about the Weather; and Meeting Other Challenges (Youth, Women, Transportation, etc.).

GOLD AND WORLD POWER: The dollar, the pound, and the plans for reform. By Sidney E. Rolfe. Harper. 1966. 276 pp. Rolfe evaluates comparatively the various plans for reforming the world's system of foreign exchange. His soundly reasoned volume explains the working of the international monetary order, discussing special problems of the United States and Great Britain.

WITH KENNEDY. By Pierre Salinger. Doubleday. 1966. 391 pp. Salinger presents a personal memoir, revolving around his career with President Kennedy. The author's treatment of his four months with President Johnson and his own Senate race are covered at the end of the book. Interesting insights are given into such occurrences as the "Bay of Pigs," the Vienna meeting of Kennedy and Khrushchev, and the Cuban missile crisis.

AMERICAN STRATEGY: A New Perspective. By Urs Schwarz. Doubleday. 1966. 178 pp. Schwarz, a foreign editor of the well-known Swiss newspaper *Neue Zuercher Zeitung*, summarizes the evolution of American strategic thought since World War I. He states that American strategy is abreast of rapidly changing technological, political, and economic developments in the international environment.

MEDICINE IN AMERICA. By Richard Harrison Shryock. Johns Hopkins. 1966. 346 pp. These essays deal with medical history, development of the profession, public health movement, medical facilities and practice during the Civil War, the story of women in American medicine, and the contributions of individuals. Information is included on the beginnings of the medical profession, medical institutions, medical education and research, and the medical profession as related to the social and cultural development in the United States.

RESCUE AT SEA. By John M. Waters, Jr. Van Nostrand. 1966. 264 pp. In 1956 the "National Search and Rescue Plan" was organized with the Coast

Guard responsible for SAR (Search and Rescue Operations) over and on the water and the Air Rescue Service responsible for land areas. The author relates how the advent of wireless, radio telephone, radar, seaplanes, helicopters, and a host of technological devices have made SAR an incredibly complicated and effective means of saving men, aircraft, and ships. The author provides accounts of actual events of rescue told in an exciting manner, doing credit to the men who risk their lives to save others.

REMEMBER THE LADIES. By Emily Taft Douglas. Putnam. 1966. 254 pp. This is a dramatic story of American women in the early years fighting for emancipation and for elimination of evil and puritanical practices. Mrs. Douglas tells her story through the lives of such women as Anne Hutchinson, Anne Bradstreet, Abigail Adams, Fanny Wright, Margaret Fuller, Emma Willard, Prudence Crandall, Dorothy Dix, Emily Dickinson, Mary Cassatt, Isadora Duncan, Jane Addams, and Eleanor Roosevelt.

SELECTED PROSE. By Robert Frost. Holt. 1966. 119 pp. All of these selections are printed in full, covering such different subjects as poetry, baseball, and religion. They afford the reader a wise understanding of the versatility of Frost as teacher, philosopher, friend, and of his creative artistry in figures of speech.

FAMILY PLANNING AND POPULATION PROGRAMMES: International Conference on Family Planning Programmes, Geneva, 1965. The University of Chicago. 1966. 848 pp. Participants at this conference discussed achievements and problems of family planning programmes in their countries, including techniques of organization and administration of programmes, contraceptive methods and their programmatic implications, and research and evaluation of programmes in various areas.

THE ISLANDS. By William Storrs Lee. Holt. 1966. 408 pp. This historical narrative of the Hawaiian Islands—lively, colourful, and easy to read—is filled with dramatic stories, humour, and many anecdotes, each chapter covering major groups and their contributions to the Islands' customs and ideas.

BOOK NOTES

SHOWCASE. By Roy Newquist. Morrow. 1966. 412 pp. In these interviews with star performers of Show Business, each begins with an autobiography followed by a serious discussion of the artist's profession, his experiences, his goals, the public, the critics, and his success. Edward Albee, Julie Andrews, Sammy Davis, Jr., Sir John Gielgud, Helen Hayes, Danny Kaye, Mike Nichols, Peter O'Toole, and Agnes de Mille are some of the twenty-five theatre people who are interviewed.

THE METROPOLITAN TRANSPORTATION PROBLEM. By Wilfred Owen. Revised Edition. Brookings. 1966. 266 pp. This study analyses the causes of the growing crisis in urban transportation and discusses various approaches to the problem, focusing attention on the need for a comprehensive approach to urban mobility. Such factors as metropolitan-wide planning, coordination of all methods of transport, and control of population densities and land uses are discussed.

THE AMERICAN REVIEW

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QUEST FOR WATER
A Pictorial Feature

JANUARY 1968

THE AMERICAN REVIEW

Contemporary articles of opinion

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THE BOWSPRIT 5

UNITED STATES-SOVIET COOPERATION:
INCENTIVES AND OBSTACLES 9

Robert C. Tucker

MALNUTRITION AND NATIONAL DEVELOPMENT 27

Alan D. Berg

CAPITALISM, SOCIALISM, AND THE FUTURE OF
THE INDUSTRIAL STATE 39

John Kenneth Galbraith

THE AGITATED HEART: ROBERT FROST 55

Theodore Morrison

QUEST FOR WATER 73

A NEW WEAPON IN THE WAR AGAINST PESTS 89

Carroll M. Williams

WHEN THE NEGROES IN VIETNAM COME HOME 97

Whitney M. Young

HOW TO MAKE A NATIONAL MARKET 111

Walt W. Rostow

TEKTITES AND GEOMAGNETIC REVERSALS 118

Billy P. Glass and Bruce C. Heezen

BOOK NOTES 126

THE BOWSPRIT

No literate person can be unaware of the immense responsibilities borne by the United States and the Soviet Union for the avoidance of world war and the development of areas of international stability. From this awareness emerged the present partial *detente* in the cold war.

Robert C. Tucker in "United States-Soviet Cooperation: Incentives and Obstacles" argues, however, that the nature of this partial *detente* is inherently unstable and inadequate; that the two powers must move forward to an *entente* involving diminished competition in propaganda, political activity, and military armaments in the less developed countries of the world.

Just as it is difficult to overstate the problems we face in providing the *total caloric input* required by the human race, it is difficult to exaggerate the necessity that the total include an *adequate protein component*. The facts of the present situation are tragic. But as Alan D. Berg in "Malnutrition and National Development" emphasizes, the technology to meet the challenge is at hand. What is needed is the will and the organization to move ahead.

J. K. Galbraith's "Capitalism, Socialism, and the Future of the Industrial State" is his own summary of portions of his most recent book "*The New Industrial State*" which has aroused both comment and controversy in the United States.

Professor Galbraith's discussion of the relation

between political institutions and state-owned enterprises should be of particular interest to societies concerned with making socialism work.

Although a poet must be judged by his poems, an understanding of the poet may increase the understanding of the poems. Moreover, the poet may be interesting as a human being. In "The Agitated Heart: Robert Frost," *Theodore Morrison* convincingly establishes both points.

In previous issues we have reprinted several articles pointing to the dangers inherent in the indiscriminate use of chemical pesticides. *Carroll M. Williams* again identifies these dangers as twofold: (a) the toxic consequences to beneficial forms of life, including insects, fish, birds, and humans; (b) the explosive development of new species of pests, resistant to existing pesticides.

But in "A New Weapon in the War against Pests" he holds out hope for a new approach which will avoid both of these dangers.

In the trying years ahead, an important factor in determining the outcome of the American Negro's struggle for full integration will be brought to bear "When the Negroes in Vietnam Come Home." *Whitney M. Young, Jr.*, suggests that the experience of full integration of Negroes in army life, their remarkable record in combat, and their contact with a nation in which white people form a small minority will profoundly affect the nature of the American dilemma.

Walt W. Rostow's "How to Make a National Market" gives high priorities to agriculture, agro-

based industries, consumer goods, and development of marketing mechanisms. Although his argument is less controversial now than it would have been five years ago in India, it states the case from a fresh look at developing economies.

Billy P. Glass and *Bruce C. Heezen* have discovered in cores taken from the floors of the oceans fascinating correlations between "Tektites and Geomagnetic Reversals."

Tektites are tiny droplets of matter formed by heating and cooling of bodies intruding from outer space. Their distribution is closely correlated in time with reversals in the earth's magnetic field. These, in turn, are synchronous with periods of acceleration in genetic mutation.

The authors suggest hypotheses which would unite the three phenomena in cause as well as time.

LETTER TO THE EDITOR

Sir:

As I have been outside the United States for the past three weeks, I only this morning have had the opportunity of reading your letter of October 16, in which you explain how the United States Information Service came to publish, under my name, a text which I have not written and to which I have never given my approval.

Good, bad, or indifferent, the text is not mine, and I wish to disavow the affixing of my name to it.

I ask you therefore, by printing this letter in your next issue, with the same prominence as that given to the original printing, to inform your readers that I

THE BOWSPRIT

accept no responsibility for the text you have printed.

You appreciate, I am sure, that such disavowals never catch up with the initial error. You will, however, make partial amends by directing any reader who wishes to know my thought and expression, on these matters, to the essay entitled "China, Russia and the United States," which I did write and which is published in the March 1967 issue of *Commentary*. The reader may then himself judge how far what I wrote is from what has been attributed to me in the USIA publication.

I would appreciate your informing me, by return mail, of the date on which your publication will print the present letter.

November 6, 1967

Yours sincerely,
Oscar Gass

We reprinted in our October issue under the title "China Stands Alone" an excerpted version of an article by Oscar Gass which originally appeared in *Commentary* under the title "China, Russia and the United States." We understood that permission to reprint an excerpted version had been granted.

Too late to stop the distribution of the October issue, we learned that we were mistaken. Mr. Gass' letter makes it clear that he wishes to dissociate himself from the excerpted version which deals entirely with China. We apologize both to our readers and to Mr. Gass for our mistake and encourage our readers to consult the full-length original article, available in all USIS libraries and elsewhere in India in the March 1967 issue of *Commentary*.

For those who may not have access to *Commentary* the analysis on the last page of this issue of the differences between the two articles may be helpful.

—R.R.R.B.

UNITED STATES-SOVIET COOPERATION : INCENTIVES AND OBSTACLES

ROBERT C. TUCKER

ONE OF THE MOST SIGNIFICANT REALIGNMENTS of the recent past, East and West, is a *rapprochement* between the United States and Soviet Russia, an uncertain move by the two military superpowers and erstwhile cold-war adversaries into limited collaborative relations for purposes of maintaining international peace and security.

Realignment

This realignment was made possible, on the Soviet side, by the death of Stalin and ensuing reorientation of Soviet policy in both internal and external affairs. It emerged slowly in the course of a post-Stalin dialogue between leaders of the two countries. The Geneva

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UNITED STATES-SOVIET COOPERATION

summit meeting of 1955 and the Camp David talks in 1959 between President Eisenhower and Premier Khrushchev were landmarks in the growth of this dialogue. The late 1950's and early 1960's witnessed a series of concrete steps that gave substance to the new trend in the relations between the two countries. These steps included:

1. *The limited nuclear-test-ban agreement of 1963;*
2. *The previous year's agreement on neutralization of Laos;*
3. *The creation of the permanent direct communication channel between Moscow and Washington called the "hot line";*
4. *The agreement on peaceful uses of the Antarctic;*
5. *The agreement not to place bombs in orbit;*
6. *The recently concluded multilateral treaty on principles for the use by all states of outer space;*
7. *The growth of cultural and scientific exchange;*
8. *The regularizing of contacts and discussion between the political leaders and diplomatic officials of the two countries;*
9. *The continuing negotiations on arms control and disarmament;*
10. *The talks on measures to prevent proliferation of nuclear weapons;*
11. *The United States-Soviet agreement on direct air connections;
and*
12. *The conclusion of the consular convention.*

Setbacks

At the same time, there have also been a number of setbacks to the new trend in United States-Soviet relations. The U-2 episode of 1960 and the Cuban missiles crisis of 1962 are both noteworthy examples.

In the middle 1960's, moreover, the growth of Soviet-American political cooperation has been seriously retarded and complicated by war in Vietnam, and especially by the United States policy, initiated in early 1965, of bombing raids on North Vietnam, a Soviet ally. At this time of writing (May 1967), the future of Soviet-American cooperation is deeply clouded.

Even without these serious setbacks, the *rapprochement* between the two great powers would by no means have been describable as a "condominium," not to mention the conspiratorial "collusion" for joint Soviet-American world rule which has been conjured up in various statements emanating from Peking.

On the other hand, we should not minimize the potential impor-

tance of the emergence in the post-Stalin era of a new Soviet-American relationship, the replacement of the old cold-war antagonism with a more complex and constructive interaction in which competition and cooperation are conjoined. What I wish to do in what follows is to explore the possible meaning of this realignment, and to consider some requisites of stable cooperative relations between the two countries.

The Historical Background

Although ideologically at opposite poles, the United States and Soviet Russia were not wholly unprepared in a psychological sense for the new trend in their relations which developed after Stalin. There was no tradition of enmity between their peoples. America has always enjoyed great popularity in the minds of many Russians, and even the Soviet Communist regime, speaking through Stalin, once defined the Bolshevik "style" in work as a combination of "Russian revolutionary sweep" with "American efficiency."

Americans, for their part, were perhaps less inclined to positive feelings towards Russia. But during the Second World War, they generally admired the Russian war effort, and ordinary Russians were more aware than their government ever acknowledged of the contribution of American Lend-Lease assistance to that effort. A large fund of mutual good will resulted.

Not surprisingly, the idea and, to some extent, the fact of Soviet-American political collaboration have a history going back to that period. For in 1941 the two countries suddenly became involved in a "cooperative relationship" of the most elementary kind—a coalition war for survival against a common enemy.

It was only natural under those conditions that some should conceive of a continuing cooperative relationship in the postwar period. Such a concept entered into the architecture of the United Nations as an organization, the Security Council in particular. Optimistic expectations were not borne out, however, and the wartime alliance gave way to the cold-war hostilities of 1946-1953.

Not until after Stalin's death did a change in the Soviet leadership and political outlook begin to make possible the more hopeful and constructive pattern of United States-Soviet relations that some had envisaged during World War II. The prerequisites for this development had been present in the Soviet internal situation ever since the end of the war. But Stalin, the most absolute of twentieth-century dictators, was for psychological reasons unable to recognize and

accept them, and continued to the end of his days to press the Cold War against the "manifold enemies" with which his paranoid personality and hostile actions peopled the world.

No Longer a Revolutionary Power

The men who came to power in the Soviet system after Stalin's death represented a generation of somewhat younger leaders who, unlike Stalin himself, had never been revolutionaries. Rather, they had come up in political life as executives and managers. They were typified by Malenkov and Khrushchev and, more recently, by Brezhnev and Kosygin.

Communist in ideology, the post-Stalin leaders give little evidence of being radical in their outlook; they are an essentially *post-revolutionary* leadership presiding over a relatively deradicalized Soviet Marxist movement, one that has gone so very far towards accommodating itself to the world that it remains ideologically committed to transform.

The deradicalization of Soviet communism has certain obviously important foreign-policy implications. They could be summed up by saying that fifty years after the Bolshevik Revolution the Soviet Union can no longer accurately be described as a "revolutionary power." Its leadership remains ideologically committed to the goal of a world-wide Communist revolution, but the pattern of Soviet conduct in world affairs has increasingly become that of a status-quo power rather than a revolutionary one.

Of course, "status-quo power" is itself a concept with a range of possible meanings. In the Soviet case, we do not have a power so rigidly wedded to the international status quo that it would actively resist revolutionary change in the non-Communist part of the world. As its response to the Cuban revolution makes clear, for example, Soviet Russia, even in this era of deradicalization, is still willing to welcome and give assistance to a regime moving on its own into the Communist orbit.

The thesis here being advanced is simply that the commitment to world Communist revolution, while still intact ideologically, has become very weak as a political motivation and has ceased to be a mainspring of Soviet initiative in world affairs. Soviet ideological behaviour has registered the trend in question through emphatic pronouncements against "export of revolution" and through affirmation of the idea that Communist revolution should occur, if at all, as an indigenous development in the country concerned and, if pos-

sible, as a non-violent one.

Polycentrism and the Status Quo

If the contemporary Soviet Union is no longer to any significant extent a revolution-making power but rather one which finds the international status quo not hard to live with, the explanation is to be sought not solely in the change of leadership and outlook attendant upon the death of Stalin and the passing from the political scene of the remnants of the Bolshevik old guard (such as Molotov) who had survived in power with Stalin.

Among other factors reinforcing the status-quo tendency is the growing polycentrism of the Communist world in our time. The fourteen Communist-ruled states and the eighty or so Communist parties elsewhere in the world are no longer under Soviet control as in Stalin's time.

Moreover, Soviet political and ideological ascendancy in the polycentric world of Communist states and parties has been powerfully challenged by Communist China under Mao. Further enlargement of the sphere of Communist political power could, in these conditions, complicate the Soviet effort to retain an ascendant position.

Indeed, Moscow's position as capital of world communism could be further undermined rather than bolstered by Communist revolutions that brought to power parties looking to China for leadership. The otherwise curious spectacle of Soviet support for a non-Communist India in its latter-day hostilities with Communist China finds part of its explanation here.

The Soviet Need for World Stability

Still another force behind the evolution of the Soviet state from the role of a revolutionary power to that of a status-quo power is the need for international stability as a setting for internal Soviet development and reform. The post-Stalin leadership inherited from Stalin a country in internal crisis caused by the long regime of terror, bureaucratic stultification, gross mismanagement, neglect of crying welfare needs of the people, and resulting catastrophically low morale.

In Stalin's final years, all these problems had gone largely unrecognized in an atmosphere of relentless pursuit of the Cold War abroad. Indeed, it may have been in part Stalin's unwillingness to face the necessity for change and reform inside the Soviet Union which spurred him to keep the nation's attention constantly fixed

upon the machinations of foreign "enemies." With his death, there was an underlying change in the relationship of internal and external politics of the Soviet regime.

Instead of predicating the internal policy upon the needs of the Cold War abroad, the post-Stalin leadership, under Malenkov and Beria at first and subsequently under Khrushchev and others, tended to give the position of priority to internal needs and problems and to seek a cold-war *detente*.

Not only would such a *detente* relieve external dangers to Soviet security (for example, by ending the Korean war); it might also make it possible to reallocate scarce Soviet funds to internal developmental needs, and especially to the long-neglected consumer-goods industries. Thus, the commitment to internal development and reform was a factor favouring international stabilization.

Nor is this, as might be supposed, a strictly short-term proposition. A Soviet regime attempting, as part of its reform policy, to rule Russia without the terror that was the hallmark of Stalinism must necessarily seek substantial and continuing improvement in the living standards of the Soviet population, and the pressure to do this rises as public opinion emerges as a force in the no-longer-totalitarian single-party system. But with a gross national product far lower than America's, Soviet Russia can divert large resources to welfare needs only if it can substantially reduce or control defence expenditures.

These considerations point to *detente* and international stabilization as a long-range Soviet interest, to arms control and negotiated disarmament measures as a way of enabling Russia to control arms outlays without falling behind in relative military power vis-a-vis the United States, and to a new political relationship with the United States as a precondition of achieving such ends.

Competitive Coexistence

The new foreign orientation of the post-Stalin Soviet leadership reflected these underlying realities. Ideologically, it expressed itself in the doctrine of "competitive coexistence," which was advanced in the time of Khrushchev and incorporated into the Programme of the Soviet Communist Party in 1961.

That doctrine portrays the United States and the Soviet Union as, respectively, the leaders of two ideologically opposed "systems" competing by peaceful means—economic, political, cultural—for dominant world influence, the chief stake in the contest being the future development of the underdeveloped countries of the Third

World either towards Soviet communism or American capitalism.

Internal economic development is a principal arena of this external competition, for it is a question of which developmental model, the Soviet or the American, will prove more compellingly attractive in the long run.

But competitive coexistence was presented in the post-Stalin Soviet doctrine as involving a measure of cooperation between the competitors. Rather in the manner in which our economists have described "oligopolistic competition," in which two or more dominant firms cooperate to prevent price wars and maintain general market stability while competing (for example, through advertising) to improve their relative shares of the market, Soviet theorists of competitive coexistence have envisaged the Soviet Union and the United States as engaging in political cooperation to prevent war and maintain overall international stability while they carry on long-range non-military competition (for example, through propaganda and ideology) to enhance their relative influence in the world.

Being Marxist, they have presented this notion of a dual competitive-cum-cooperative relationship with America as a "dialectical" approach to coexistence. The basis of the cooperation, according to the Soviet view, as formulated by both political leaders and theoretical specialists, is the shared vital interest of the two great powers in reducing the chances of war. Cooperation for this purpose would involve:

1. *The development of close and regular contact on all problems of mutual concern;*
2. *The attempt to negotiate solutions of issues concealing threats to peace;*
3. *The defusing of trouble spots in various parts of the world (Laos, for example); and*
4. *The stopping of local conflicts before they grow into great conflagrations threatening to involve the major powers.*

In effect, the new Soviet doctrine has seen in United States-Soviet political cooperation a way of keeping competitive coexistence peaceful, of maintaining a relatively stable international environment within which the non-military competition for influence can proceed.

The United States Government has, since President Eisenhower's time, tended to respond favourably to the concept of a changed relationship involving some cooperation as well as continued political rivalry with Soviet Russia. It, too, has shown awareness that such co-

UNITED STATES-SOVIET COOPERATION

operation could prove a requisite for cosurvival in the nuclear age. It, too, has an interest in curbing the astronomical costs of modern military technology, the spiral of the arms race.

Without some success along that line, it can no more get to what is now called the "Great Society" than Soviet Russia can get to what it calls "Full Communism" (two visions of the social goal which have, by the way, more than a little in common).

So, the new Soviet foreign orientation of the post-Stalin period found a receptive audience in Washington. President Kennedy's speech at American University, "Towards a Strategy of Peace," was one of the significant markers of this trend in United States official thinking.

President Johnson, too, has strongly endorsed the concept of a cooperative relationship with Russia. "We've got to get into the habit of peaceful cooperation," he said, for example, in a public pronouncement of September 1966 to the Soviet people, emphasizing the common interest of the two countries in the avoidance of war, the historical record of friendliness between the two peoples, and the desirability of extending cooperative relations beyond what had so far been accomplished.

Modest Results

Taking stock of the outcome so far, it must be admitted that the experiment in Soviet-American collaboration has not yet borne great fruit in deeds or brought about a stable *entente* between the two governments. Although by no means insignificant in their cumulative entirety, the cooperative acts and agreements noted earlier are little more than a series of tentative and cautious beginnings.

Let us consider, for example, some of what has *not* yet been done. So far, progress on arms control and disarmament has been small. The treaty on non-proliferation of nuclear weapons would, it is true, be a very great step forward in this field. But at present it still remains under negotiation, and the outcome is uncertain.

Part of the responsibility for that rests with the failure of the United States and the Soviet Union to match the renunciation being asked of others with some renouncing on their own parts—such as the renouncing of the right of *first use* of nuclear weapons—and to give guarantees to the non-nuclear states against nuclear blackmail or nuclear attack by governments which might try to violate the system.

What is more, the United States and the Soviet Union may be on the threshold of another fateful round of the arms race, involving the

deployment of antiballistic missiles systems and resulting further development of offensive weapons by both sides, all of which may represent a serious setback for the cause of arms control (for example, by necessitating a resumption of nuclear tests above ground).

They have not so far been willing to transform the costly competitive race to the moon into a cooperative venture. They have done next to nothing to place economic assistance to underdeveloped countries on a cooperative and multilateral basis, although the emerging crisis of economic growth and over-population makes the need for a cooperative approach to the problem painfully obvious.

Obstacles to Cooperation

There is no single or simple explanation for the tentativeness of United States-Soviet cooperation and for the modest character of the positive results so far. One of the explanations, however, lies in the strength of the resistances and obstacles on both sides to a working accord between the United States and Soviet Governments on important international problems. Realism not only compels us to acknowledge the existence of these obstacles, but also to admit that they make themselves felt on both sides.

Thus, both great powers encounter resistances within their respective alliance systems to a Soviet-American *entente*. They emanate in particular from certain governments whose leaders fear that United States-Soviet cooperation could be injurious to their own national interests. The importance that both the United States and the Soviet Union attach to the preservation of their alliance structures forces them to take account of these counter-pressures.

Soviet policymakers have had to contend in particular with Communist Chinese objections to the relationship with the United States; and the United States Government has had especially to contend with concern in West Germany over the possible impact of Soviet-American cooperation upon German reunification and other interests.

Old Habits of Mind

A further obstacle to collaborative relations between the two great powers is the persistence on both sides of old habits of mind born in the era of the Cold War, habits of ingrained hostility and distrust, habits of seeing the struggle against the other side as the supreme proper concern of national policy, and cooperation between Russia

and America as unnecessary for security purposes or undesirable, or both. To make matters still more complicated, these habits of mind are unevenly distributed on both sides.

Some American and Soviet political leaders are more flexible and conciliation-minded, more able and willing to conceive of collaborating with adversaries and to experiment along those lines, whereas others are more rigid and doctrinaire, more inclined to rely on military might in relations with the other side, more convinced that the only effective way to talk to them is in the language of cold power.

In the jargon of recent times, we have the "softliners" and the "hardliners," the "doves" and the "hawks." These terms are obvious oversimplifications, but the divisions to which they point are real and enormously important facts of political life in *both* of the capitals.

The recent United States Senate debate over ratification of the consular convention with the Soviet Union made the division on the American side more dramatically apparent than before. Because of the single-party system and official control of the press on the other side, the division is less apparent in the Soviet leadership. Yet those of us who regularly study the Soviet press have found abundant evidence that it exists.

Reciprocal Resistances

And so, on both sides, there are influential elements who *oppose* a Soviet-American working relationship and who resist efforts in that direction to the extent that they can. In a curious way, moreover, they reinforce each other. For insofar as the Soviet hardliners gain the ascendancy inside the Soviet Union's regime, the policy orientation that they pursue tends to support the arguments of their opposite numbers in Washington about the difficulty of working cooperatively with the Russians.

The same process also works in reverse: ascendancy of those who favour a hardline policy in Washington plays into the hands of the Moscow opponents of Soviet-American cooperation, for it leads to actions by the United States Government which make the latter's arguments in the internal policy debate on the Soviet side more plausible.

Thus, the tough policy that the United States Government has pursued in Vietnam during the last two years has resulted, among other things, in a growth of influence of hardline elements inside the Soviet Government and a worsening of the position of the proponents of better relations with Washington.

Rivalry in the Third World

Still a further serious obstacle to a stable and self-sustained United States-Soviet working relationship is the continuance of political rivalry between them at the level of intensity that has marked it during the past decade. Both great powers have vigorously engaged in a political influence contest, particularly in the Third World, employing diplomacy, economic assistance, arms exports, technical aid, propaganda, and so on.

Experience makes it quite clear that this influence contest can create situations that, in turn, impose great strain upon the fabric of Soviet-American relations. Thus, for example, Moscow, pursuing political influence, has in recent months created an arms imbalance in North Africa by shipping much military equipment to Algeria, which has led to a plea from Morocco to the United States for matching arms assistance.

The dynamics of situations of this kind contain within themselves the potentiality of armed conflicts which, in turn, create more international tension and threaten to involve the superpowers. The earlier history of present events in Indochina bears witness in its way to the relevance of this proposition.

So, the whole concept of a "non-military" Soviet-American competition for influence in the uncommitted countries has a certain unreality. For competitive coexistence tends to remain peaceful only so long as neither side is conspicuously or irretrievably *losing*.

The game shows a dangerous tendency to cease being peaceful when:

1. *a change of regime seriously adverse to one or the other side occurs or threatens to occur within a given country that has been an object of competition, and*
2. *circumstances permit the application of force to prevent or reverse this adverse outcome.*

An intense competitive struggle to draw uncommitted countries into one orbit of influence or another is therefore a serious bar to the development of stable cooperative relations between the United States and the Soviet Union.

The War in Vietnam

All of these obstacles to Soviet-American cooperation have made

UNITED STATES-SOVIET COOPERATION

themselves felt in recent years and help to explain why more has not been achieved. In this connection, special mention must be made of the war in Vietnam.

On the surface, this war has not completely put a stop to United States-Soviet political collaboration. Yet, in a deeper way, the war, and especially the bombing of North Vietnam which began in early 1965, has had a very depressing effect upon the whole post-Stalin growth of working relations between Moscow and Washington.

Changes that slowly were taking place in the official Soviet image of the American political leadership have been set back or reversed, and an image of the American leadership that resembles the old cold-war stereotypes has re-emerged in the Soviet official press.

A relapse into old suspicions, old animosities, and old anti-American Soviet reflexes may be reflected in this. In part, it may reflect increased influence of the hardline element in the Soviet leadership under the impact of Vietnam, and in part it may express a general tendency of the Soviet political mind to reconsider its earlier more hopeful view of American leaders.

Furthermore, in the general atmosphere of West European apathy or opposition to America's Vietnam action, the Soviet leadership has been presented with fresh opportunities to cultivate political relationships in Europe that might not otherwise have existed or have been so beckoning, and consequently we have seen in the past two years a tendency for Moscow to exploit centrifugal forces in the Western alliance structure, to give the emphasis not to closer relations with Washington but rather to closer relations with West European capitals, Paris included.

Finally, the dialogue between Soviet and American leaders, a dialogue which lies at the core of the cooperative relationship, has suffered and greatly been diminished as a result of Vietnam. On the whole, the injury done to the emergent *entente* with the Soviet Union may be far from the least of the tragedies of the Vietnam war from the American point of view.

Yet I do not believe that the new Soviet-American relationship is or need be permanently impaired. Given in the near future a negotiated peace in Vietnam, the underlying forces in the world situation which impel the two superpowers to collaborative action should reassert themselves. Fundamental security interests of both powers, and indeed of all peoples, are involved.

Hence, it seems premature to assume a permanent shift of Soviet diplomatic emphasis to the Western European scene or to treat the whole venture of cooperative relations between the United States

and the Soviet Union as a matter of historical interest only. What may be useful, then, is to reflect on the experience of the past decade in this field, and try to draw some lessons from it.

Potential Common Interests

1. It appears that, notwithstanding all the obstacles explored above, the incentives to cooperative action by the two superpowers are quite strong, sufficiently so to provide a basis for greater success in this field than has been achieved so far. The fundamental incentive is the common interest in reducing the danger of a thermonuclear holocaust.

This primary common interest, reinforced by a further common interest in curtailing the cost of military preparations and establishments, dictates United States-Soviet cooperation in all feasible measures of arms control and disarmament.

Further, the primary common interest in preventing a general war gives rise to a set of secondary common interests in stabilizing or settling crisis-situations in which the threat of armed violence is latently present.

Beyond these shared interests in avoiding war, in bringing the arms race under control, and in the defusing of world trouble-spots, the United States and the Soviet Union have an underlying, although as yet imperfectly cognized, common interest in working together to meet certain other problems and dangers.

The population explosion, the growing disparity between the wealthy nations and the poor nations and the associated problem of economic development, and the problem of air and water pollution are high on the list of situations that contain a mounting threat of disorder on a world scale, situations of unprecedented urgency and seriousness.

Only through international cooperation can these dangers be contained, much less allayed, and without cooperation between the two most powerful and wealthy of industrialized nations, no efforts by the United Nations or regional associations of states can bear great fruit.

In effect, international cooperation is becoming a vital necessity in the face of the rise of a plethora of problems that, by their very nature, cannot be satisfactorily resolved within the confines of the nation-state. In the continuing absence of an effective system of world order, the United States and Soviet Russia can alone provide by their cooperative action an interim response to the need for a co-

operative international approach to these problems.

It is not only, then, the danger of war which provides the underlying motivation for their cooperation, but also the political, demographic, economic, and technological challenges to prolonged meaningful human living on this planet.

From Detente to Entente?

2. A cooperative arrangement between the United States and the Soviet Union cannot easily be enduring and stable unless it becomes more close and extensive than political leaders on either side have apparently envisaged, and unless it takes precedence over such important competing concerns as the integrity of their regional alliance structures.

Up to now, the tendency on both sides has been to think in terms of a modicum of cooperation combined with a high level of continued political rivalry throughout the world. The experience of the past decade suggests, however, that unless the cooperative working relationship transcends this, unless it goes beyond a *detente* and becomes an *entente*, it may not be viable at all.

This view is admittedly at variance with the thinking of some respected American specialists in foreign-policy problems. They take a continued intense process of Soviet-American competition for influence as a constant and feel, in part because of pressures from within the Western alliance system, that cooperative relations with Moscow neither need be nor ought to be extended beyond a minimum of mutually advantageous action, chiefly in the sphere of arms control, to reduce the hazards of nuclear war.

However, such a scenario for American-Soviet relations may be more of a utopia than the just-mentioned *entente*. For it overlooks the essential indivisibility of these relations, the virtual impossibility of maintaining stable cooperative arrangements in one field—the delicate and difficult area of arms control—while pursuing as vigorously as ever a world-wide political competition for influence which keeps the competitors mutually estranged and periodically generates high tension between them. The cooperative links between Washington and Moscow cannot be expected to prosper if frequently subjected to extreme political turbulence in a world of intense Soviet-American political rivalry.

This is not to argue that some sort of global bargain between the two powers is the precondition of their successful cooperation in world affairs. An antecedent general settlement of outstanding in-

ternational issues, however desirable in the abstract, does not appear realistically attainable in the near future. Undoubtedly, there are various issues—and German reunification is almost certainly one of them—which will have to be lived with until the slow passage of time and efforts of diplomacy can bring possibilities of resolution that do not now exist.

The point being made here is simply that the competitive process, although it clearly cannot altogether be stopped, need not on the other hand be taken as a simple given, an unalterable fact of international life, something over which the two governments have no control. Rather, it has an interactive dynamic of its own which can be curbed and brought under control, given the settled will on both sides to do so. It is something to which limits can be set.

And difficult as this might be to achieve, it would probably be less difficult than to achieve progress on the terribly complex technical problems of arms control and disarmament *without* curtailment of the power rivalry between the two principals. On the other hand, progress on arms-control measures should become increasingly feasible in a setting of lessened political competition between the chief governments concerned.

The theory of competitive coexistence, as elaborated on the Soviet side and more or less accepted with much ideological rationalization on the American side, envisages an indefinitely prolonged process of political competition tempered by cooperative steps to keep this competition peaceful. But that is a formula for an inherently unstable and deeply troubled United States-Soviet relationship.

Primacy for Cooperation

To stabilize it, *the cooperative aspect will have to be given primacy over the competitive aspect.* The two governments will have to show a settled disposition to reach settlements where possible. They will have to neutralize or otherwise defuse various danger points in world politics, such as Southeast Asia; to forestall the eruption of crisis-situations that place great strain upon their relations; to avoid getting into conflicts which give rise to domestic pressures against cooperative relations; and, in general, to adopt a conflict-resolving posture in their interrelations and their approach to world problems.

Clearly, this would imply certain significant modifications in the habitual modes of thought and conduct of both main powers on the international scene. Above all, instead of regarding the promotion of a particular form of society as their highest mission in history, the

UNITED STATES-SOVIET COOPERATION

leaders would have to conceive it as their supreme goal to serve the cause of order in human affairs, pending the slow creation in time of order-maintaining institutions on a world scale.

What Form of Entente?

3. This raises the whole question of the form that a United States-Soviet *entente* might take. Manifestly, close relationships between great powers can take a multitude of forms, depending upon the purposes that animate them and other factors. A United States-Soviet working relationship could conceivably fall into the pattern of imperialistic great-power alliances of the past, with a division of Soviet and American spheres of influence in the world. In effect, the interests of the two powers, narrowly conceived, would become the touchstone of their cooperative action.

Although the United States and Russia have the combined physical power to enforce such a condominium, an attempt to cooperate along those lines would not, for a great many reasons, be likely to succeed for long. Not only would it be beset by manifold resistances from smaller states whose interests were being overridden by the great powers; it would conflict with the aspirations of the two peoples themselves, and would encounter resistances, both internal and external.

An alternative form of *entente*, although historically unprecedented, would be more in accord with the needs of the situation and the spirit of the two peoples. Instead of cooperating politically in their own national interests, narrowly conceived, the Governments of the United States and the Soviet Union would seek to exert their influence separately and jointly on behalf of the growth of order, which is in the interest not simply of these two major nations but of all.

They would work not only in their bilateral relations but in the United Nations and its working bodies, in their regional alliances, and in every aspect of foreign policy, to promote constructive change and peaceful solutions of world problems.

A Trusteeship

In effect, the United States-Soviet cooperative relationship would become a kind of trusteeship under which the two governments would jointly act as sponsors of international order pending the creation of a workable formal system of world order in the future. They would form, as it were, an informal interim system of order,

a holding operation to help man survive long enough to move into the new form of international life that is needed but does not yet exist.

Such an undertaking would tap the deeper sources of idealism present in both the American and Russian peoples. Among contemporary nations, these two are notable for the stubborn streak of idealistic aspiration that marks them both in very different ways.

Both have a universalism and a commitment to world order. They conceive it differently, it is true. Americans tend to think in terms of a world order under law, whereas Russians, insofar as they are Communists, tend rather to think in terms of a world order under ideology.

No easy reconciliation of these disparate approaches to world order will be possible. But the younger generations, those who come to positions of power and influence in ten or fifteen years time, may find it easier than their elders did to make the necessary mutual adjustment. What their elders can do is to give them a chance to try.

Mutual Trust

4. Finally, it is, in my opinion, an essential requisite for stable cooperation between the United States and the Soviet Union that an element of mutual trust be built over time into their mutual relations. The foundation of this trust might be the recognition by leading persons on both sides that the two countries have acquired, by virtue of modern military technology, not only certain common security interests but a *mutual* security interest. That is to say, given the unheard-of possibilities of destruction inherent in total thermonuclear war in our time, each of the two superpowers has, whether it recognizes this or not, acquired a certain interest in the *other's* security, or (what amounts to the same thing) its sense of security.

For nervousness, tension, insecurity on either side have become dangerous to both. It is in this context that the growth of mutual trust becomes a factor of great potential importance.

Considering the heritage of mutual mistrust and suspicion born of the Cold War and the whole past history of our relations, the idea of building trust into Soviet-American relations may seem wildly unrealistic. Moreover, there is a certain tendency to suppose that the sole proper basis for Soviet-American relations, including cooperative action in arms control, is the rationally calculated self-interest of both parties, their common desire to survive.

This may be so, but it is not self-evidently so. For it may be that in

certain situations now emerging on the horizon of Soviet-American relations, the dictates of calculated self-interest will depend on what image of the other side goes into the calculation: the picture of a malevolent force operating only on the basis of calculated self-interest, or, alternatively, that of a force moved by certain human feelings and not foreign to benevolence.

If this is so, then the growth of trust—the kind of trust that may have been emerging, for example, in the relations between Kennedy and Khrushchev—could prove of decisive significance.

To build mutual trust into United States-Soviet relations will at best be a long slow process, and probably never complete, at least in the present generation.

But without it, there can be no genuine *entente*, and many problems will be far harder to resolve. In particular, the arms race will probably not be brought under control.

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MALNUTRITION AND NATIONAL DEVELOPMENT

ALAN D. BERG

NEW EVIDENCE SUGGESTING A RELATIONSHIP between malnutrition and mental retardation should be cause for major policy concern in a number of world capitals. The recognition that malnourished children may emerge from childhood lacking the ability to reach their full genetic intellectual potential introduces a new and perhaps frightening note into theories of national development.

The implications are ominous. For many years we have assumed that, given educational opportunities and environmental advantages, each normally born infant has every prospect of growing up to be bright and productive.

It is now suggested that malnourished children may be basically dull. The significance of this can be appreciated when we recognize that as many as two-thirds of the children of most developing countries are now suffering from some degree of malnutrition.

Infant Deaths

The relationship of malnutrition to mental growth dramatizes the

issue. However, the insidious drain of malnutrition on national development takes other significant forms. Half the deaths in the developing countries occur among children under six years of age. In certain African countries, Libya for example, a mother must have five children to assure that one reaches the age of fifteen. In Northeast Brazil, 48 per cent do not survive the first year of life; by the age of four, 63 per cent have succumbed.

In parts of Southeast Asia, 40 per cent of the children die of disease in their first four years. This is a proportion of deaths not reached in the United States until the age of sixty.

The vast majority of these child deaths are attributed to infectious diseases. Yet most of these diseases are relatively minor childhood ailments. The cause of the death, we now know, is not the infection itself, but usually the malnourished condition of the child when he contracted it. In other words, malnutrition debilitates the body to such a degree that it is incapable of resisting what would otherwise be a passing infection.

In a country like Ecuador, the child death due to measles is more than 300 times greater (per thousand of population) than in North America. Whooping cough is still a major killer in much of the world. Similarly, such childhood diseases as chicken pox are often fatal because of the child's malnourished condition.

Physical and Mental Growth

For a sizable portion of the survivors, malnutrition permanently retards physical growth. In many countries the average twelve-year old has the physical stature of an eight-year old in Europe and North America. Indian nutritionist Dr. C. Gopalan reports that 80 per cent of preschool-aged children in the rural areas of his country suffer from malnutritional dwarfism. The effect of this on productivity and the limits it places on the individual's potential contribution to his society are obvious.

An increasing body of evidence now suggests a similar relationship between malnutrition in the early years and mental retardation. During the months of breast feeding, children from the poorest areas grow at a rate comparable to the best nourished children elsewhere. Usually after six months of age, however, when breast milk is no longer a sufficient source of protein, growth is progressively retarded.

The result is an important and irretrievable loss of learning time during the most critical years of intellectual development. Further,

some prominent nutritionists now suggest the damage may be irreparable (as is acknowledged in the case of physical retardation), even in the unlikely prospect that today's malnourished child eventually has access to proper nutrients. Dr. Joaquin Cravioto of Mexico, a pioneer and leading researcher in the field, says "sufficient evidence is already available to show that chances of permanent damage are high."

The Economics of Malnutrition

What does this mean to national development? How much more productive is a properly nourished man? How much more will a man with full mental and physical capacities contribute to his society?

Conversely, what are the costs to the society of malnutrition in the form of medical treatment, welfare-type relief, and waste through death of those who have a limited number of productive years? What would be the cost/benefit ratio of a \$10-million investment in food enrichment, for example, as compared to other forms of development expenditure, e.g. spending the \$10 million for fertilizer or dams or roads or schools? What, in fact, is the relationship of malnutrition to development or, more specifically, what are the economics of malnutrition?

Unfortunately, little research has been directed to these questions. The scattering of peripheral studies, however, leads to certain inferences worth noting:

1. Limited life expectancy brought about by malnutrition limits the number of productive years. Recent calculations by Dr. Eugene Campbell show that the typical worker of Southeast Brazil will—because of improved health and resulting increased average life expectancy—produce nearly five times as much during his lifetime as the average person born in nutritionally deficient Northeast Brazil.

Where malnutrition reduces life expectancy, the cost to society for education and other supporting expenses through the pre-productive years becomes proportionately more costly per year of productive output.

2. Malnutrition decreases a worker's productivity. The body, weak from lack of proper nutrients, protects itself by avoiding the expenditure of energy. This results in apathy, lethargy, and lack of initiative—characteristics commonly found in poorly fed groups in protein-deficient countries.

In the past, this apparent sluggishness was frequently attributed to laziness, indolence, or other so-called "ethnic traits." The Food and

Agriculture Organization now reports that those countries with the lowest per capita daily protein (and caloric) consumption are also those with lowest productivity.

An interesting demonstration of the relationship was noted during the construction of the Pan-American Highway. The disappointing output of local labourers was quickly remedied with the introduction of three well-balanced daily meals. Within a few months, workers averaged an increase in concrete paving from 1.8 to 5.9 cubic yards per day.

3. Malnutrition lowers a worker's resistance to disease and, relatedly, increases his rate of absenteeism from the job. Further, accident rates are higher among those who tire quickly due to malnutrition.

A study of the old East African Carrier Corps reported that those labourers who supplemented their rations with herbs and green leaves showed a lower hospitalization rate—10 per cent compared to 40 per cent for those who did not.

4. The medical costs necessary to treat the effects of malnutrition—either through hospitals or health centres—are many times greater than the cost of providing the necessary nutrients to prevent the malnutrition initially. One estimate, in Guatemala, is that the cost of 90 days of hospitalization for each case arising from inadequate nutrition is \$600, compared to an annual cost of \$7 to \$10 to prevent the malnutrition in the first place.

5. Certain nutritional deficiencies, such as acute vitamin-A deficiency which results in blindness, limit opportunities for productivity. In India alone, there are at least one million preventable cases of blindness attributable to this cause alone. In East Pakistan, 50,000 children every year are threatened with a possible lifetime of blindness due to their precariously low vitamin-A intake.

The blind have few opportunities to contribute to society and, in one form or another, they usually become a drain on that society. Yet for a few pennies a year, this blindness could easily be prevented.

The Costs of Beri Beri

The Philippine Government is attempting to pin a cost tag on its major diseases. To arrive at a figure, it combines production loss, manpower fatality loss, cost of medical care, and burial expenses. Using this calculation, total economic loss per year for beri beri, for example, is estimated to be more than 44 million pesos (\$11 million). This is only for those cases reported or recognized. Probably

there are many others.

The late Dr. R. R. Williams, synthesizer of thiamine, reported: "Deficiency diseases are extremely insidious in that they are sapping the vitality of Asians to an unknown degree. My conviction is that there are scores of millions, perhaps hundreds of millions, in Asia who are suffering from mild beri beri, and have done so for years, and they still do not know they have it. . . . As a drain on the vitality of many people who suppose they are well, the deficiency diseases are a tremendous handicap to the struggling millions of Asia."¹

Interestingly, due to Dr. Williams' discovery, beri beri could be significantly controlled. Experimental enrichment of rice in seven municipalities in Bataan was responsible for a 76 per cent to 94 per cent decline of the disease. In one year, the beri beri fatality rate fell to a tenth of what it had been.

A cursory look at some of the other literature suggests: In Newfoundland, compulsory enrichment of flour is credited with a striking 40 per cent decline in infant mortality. In Madagascar, a sugar refinery is reported to have reduced the turnover rate of migrant labour from 60 per cent to 6 per cent by the introduction of a balanced cooked meal.

In Indochina during World War II, study of a rubber plantation showed that there was a 50 per cent increase in work output after the opening of a canteen which provided a liberal diet. In Costa Rica, a public works project showed over three years an increase in work output—from 240 to 1,157 cubic metres of earth moved per man per day—primarily as a result of improved sanitation and provision of substantial meals to the labourers. Other studies in Uganda, Kenya, Brazil, and the old Belgian Congo come to comparable conclusions.

Apparently, no one has computed the monetary loss to economic development caused by malnutrition, but one can be sure it is considerable.

Mr. George Verghese, Information Adviser to India's Prime Minister, recently reported after a trip to drought-plagued Bihar: "It is quite common to be told that the people are lazy, indolent, stupid. Angry words, but true—and the result of malnutrition over several generations. . . . The economic cost to the nation of the consequent human inefficiency has never been calculated. It must run to hundreds of crores of rupees (hundreds of millions of dollars) each year. . . ."

¹ Federation of American Society for Experimental Biology, *Proceedings*. n. 20, 1961 (Supplement 7:323).

Protein Deficiency

Although malnutrition is brought about by a number of dietary deficiencies, the most serious and challenging to scientists at the moment is the inadequacy of protein—the critical nutrient for both physical and mental growth. Protein need cannot be divorced from general food intake, but once the minimum number of calories is available to sustain life, it is the quality of the food which becomes all-important.

Dr. Aaron Altschul, the protein chemist, has calculated that more than half of the 80-odd million tons of protein consumed in the world every year is in the form of grain, not because grain is so high in protein (on the order of 10 per cent) but because wheat, rice, corn, and other grains are consumed in such enormous quantities. If one could somehow enhance the protein quality of this grain, considerable progress could be made in the battle against protein malnutrition.

The value of protein in foods varies widely. It depends on a series of so-called “essential amino acids”—the value of the protein being only as great as the smallest of these. Envisioning this as a bar chart, with a number of tall bars and one short one, the value of the total protein is only as great as the shortest bar. The rest is wasted. In the case of most cereal grains, this limiting amino acid is lysine.

High Protein Corn and Synthetic Nutrients

In one of the most significant scientific discoveries of this generation, Dr. Edwin Mertz and his associates at Purdue University recently developed, through genetic selection, a strain of corn with a substantially increased lysine content. As a result, the protein value of corn can be nearly doubled, i.e. corn may provide a source of protein almost as good as milk.

Presumably this genetic approach to protein improvement can be applied also to rice, wheat, and other grains. Tests are now being conducted in several countries to see whether such application is possible.

As significant as such steps may be, it must be recognized that even under the best of circumstances the world is still a number of years away from growing a sufficient quantity of such high-protein seed to make the kind of impact required now.

Happily, a short cut may be possible—that is, by adding nutrients synthetically. The technology now exists to incorporate amino acids, such as lysine, during milling or by treating the whole grain. In processed foods, the system is even simpler. In the United States and

Japan, a few commercial firms are already adding lysine to breakfast cereals, drinks, breads, and soups.

Oilseeds for Protein

A number of other possibilities also are under study. Many of them are based on the notion that inexpensive oilseeds, such as peanut, cottonseed, chickpea, soybean, sesame, sunflower, and coconut, if processed and formulated into acceptable foods, can meet a protein requirement at considerably less cost than milk. (Milk is a luxury that most people in developing countries will not be able to afford for many years.)

After the oil is extracted from these seeds, little use is made of the residue for human feeding. Yet this material, properly processed, contains up to 50 per cent good quality protein suitable for the human diet—particularly if combined with other foods. The cost of oilseed protein is well under one-fourth that of dry milk, and less than a tenth that of most other animal protein. The present supply of oilseed meal alone, properly processed, would be sufficient to meet more than twice the world's total protein deficit.

This oilseed principle has been employed by a number of companies in various countries to produce a variety of commercial, low-cost protein products. The most successful of these is Vitasoy, a soy-based Hong Kong beverage sold in a typical soft-drink bottle and given a typical soft-drink promotion. Its sales keep pace with the major international soft drinks, and it outsells all others in the Hong Kong market.

In South Africa, a line of foods, including soups, candies, beverages, and cereals, under the label Pronutro, has been commercially successful, multiplying its sales ten times in the past two years. And in Latin America, Incaparina—a cottonseed-based beverage patterned after the *atole*, a drink the Mayan Indians have taken for centuries—has begun, after years of development (and evangelism by the Quaker Oats Company), to be accepted.

There is not a conspicuous number of such projects. There has been enough experience, however, to conclude that certain elements are essential to success: the product must be palatable; it must be inexpensive; it should be similar, if possible, to products already known; it should incorporate ingredients that are locally available (or potentially so); it must be nutritionally potent.

Although this approach offers exciting possibilities, its significance should not be viewed out of context. The claim of some food scientists

that this is the answer to the protein problem is perhaps a bit optimistic—at least for the present. Although the commercialized, formulated protein food can be of significant value to the urban poor, it offers less hope to the malnourished multitudes living in non-monetized rural areas.

Toned Milk and Fish Concentrates

Another interesting use of oilseeds in some countries could be the “toning of milk.” In India, for example, the butterfat content of buffalo milk is more than double that of cow’s milk. By adding additional protein, one can dilute the butterfat content and stretch the available milk supply.

Toning has been accomplished in the past with non-fat dry milk—now unfortunately in short supply throughout the world. However, Indian food scientists have devised the technology to use oilseed isolate in place of powdered milk—at considerable economy.

Recently much attention has also been given to fish protein concentrate (F.P.C.), another good and inexpensive protein suitable for infants. The development of F.P.C. has followed a rocky road—especially in the United States. However, even here the earlier aesthetic objection to consuming the whole fish apparently has now been overcome. The same is true of various technical obstacles as is reflected in the recent approval of two F.P.C. processes by the U.S. Food and Drug Administration.

Fish is the most underutilized conventional food source—accounting for only 1 per cent of the world’s total food consumption. Assuming that widespread cultural and religious taboos can be overcome, the use of fish in combating malnutrition has great potential.

Protein from Petroleum

A number of other protein discoveries have been made of late, some at this point laboratory curiosities, others verging on science fiction. But their potential is too important to overlook. Receiving considerable attention is the prospect of producing edible protein by growing single-cell organisms on natural gas, petroleum vegetable wastes, or even coal.

The Dutch Shell Group, for example, has found a bacterium which uses methane, a natural gas, as its sole source of energy for reproduction. These bacteria contain about 50 per cent protein and, according to U.S. nutritionist Dr. Nevin Scrimshaw: “There is little doubt that

wholesome and nutritious single-cell products utilizing energy from petroleum or natural gas can be developed and produced in almost unlimited quantities within a decade.”²

Some scientists are talking in terms of three to five years. Already, two million pounds of petroleum-based feed are being used to fatten cattle and poultry in a Russian research project. A similar “petroleum diet” experiment is being conducted with pigs in Nigeria.

The potential advantages are many: the relative abundance of petroleum, even in food-short countries; the independence from climatic uncertainties; the small space requirement; the need for only a few technicians; and the rapid growth rate. All these suggest the possibility of unlimited man-made protein production.

Most of the world’s large petroleum companies are deeply engrossed in protein projects. Some are actively collaborating with major food companies—such as the current Esso-Nestle liaison. The president of Gulf Oil recently predicted that protein food will become a significant by-product of the oil industry.

Scientific imagination has gone further. “Milk” has been produced from water-soaked leaves. Seaweed and algae are other protein possibilities currently being examined. (A French company recently discovered an entire West African village successfully using algae as its basic protein source.) Much work remains, however, to improve palatability and to find ways of producing economically feasible products.

Changes in Food Habits

Required changes of food habits, indispensable to the success of many of the above approaches, present an imposing obstacle. Although there is an important correlation between dietary standards and per capita income, food habits also have deep psychological roots and are associated with love, affection, warmth, self-image, and social prestige.

As a result, there is perhaps no aspect of personal life less flexible than one’s eating pattern. Behavioural studies of Tunisian immigrants to France demonstrated that changes in their food habits occurred long after they had accepted the language and newspapers of their adopted country.

Change comes hard, even among the most sophisticated elements of society. How many doctors, for example, have altered their break-

² “Increasing the Production and Human Use of Protein.” Working Paper for U.N. Advisory Committee on the Application of Science and Technology to Development, October 5, 1966, p. 21.

fast habits—their consumption of eggs, butter, cream, sugar (and the after-breakfast cigarette) in the face of health warnings circulated in recent years? Resistance to change is even stronger in traditional societies lacking the advantages of extensive communications.

To bypass what Dr. Margaret Mead refers to as “the irrational rigidity” of inadequate diets, one might conclude that, when possible, emphasis should be placed on food fortification and the development and multiplication of new varieties of high-protein seed. Neither the colour, texture nor taste of the food need be affected. Similarly, no change would be required in existing buying, cooking, or eating habits.

This does not eliminate the need for other approaches or for a strong educational effort. In Africa, for example, some believe that mangoes produce jaundice. In India, one of the few foods accepted throughout the country is *dal*, very high in protein, but rarely fed to the weaning infant because of unfounded fears that it will cause digestive problems and eventual death.

In this instance, the necessary protein to keep the child healthy is literally in the mother’s possession. Yet *dal* typically is fed only to adults of the family, even though the protein requirements of the infant are two and one-half times greater per kilo of body weight.

Child Feeding Programmes

In a fascinating study of changes in Israeli food habits, Dr. Sarah Bavly concluded that the most important influence in the introduction of new foods—weighed against the influence of newspapers, radio, husbands, and neighbours—is the exposure of the child to nutrition education in school. Second in rank is the provision of a school lunch, even without formal nutrition instruction.

The large programmes of child feeding now under way in most developing countries are themselves helping to improve standards of nutrition, but many believe they could be accomplishing more. Unfortunately, such programmes frequently connote relief or charity.

As a result, the food is usually provided as an end in itself, rather than to accomplish other important goals, viz. intentionally reorienting eating habits, incorporating nutrition education into the curriculum, encouraging the use of local commodities, and helping to establish the necessary agencies to continue a programme after current sponsors no longer are involved.

In the critical role played by agriculture in economic development, primary attention is and should be given to greater farm yields. How-

ever, the need for more attention to the qualitative side of food production is becoming increasingly apparent. Provision of adequate supplies of grain staples is not enough, as has been demonstrated in Mexico, where the enormously successful campaign to increase overall food production has not resulted in significantly alleviating widespread malnutrition among children.

An item on the current agenda of the U.N. Economic and Social Council implies that in agricultural planning the nutritional needs of the population and particularly of the preschool child should be taken into account.

Finally, no discussion of increasing protein supply is appropriate without some mention of the work needed to prevent sizable protein loss to insects, rodents, and mould. In India, this has been estimated at up to four million tons a year. Although there are many questions yet to be answered concerning the most effective techniques, sufficient information is already known—especially in the context of proper storage facilities and environmental control—for major steps to be taken immediately.

The Need for Coordination

Although most of the necessary resources to combat malnutrition may be readily at hand, the solution to this problem is by no means simple. Unlike the successful programme to eradicate malaria, more than a can of spray is needed to conquer this more pernicious enemy. Malnutrition is a multifaceted problem requiring a coordinated approach. Other than in a superficial sense, this does not now exist.

One of the basic difficulties is the lack of consensus among the many disciplines working in the field, and often among many of the scientists within the same discipline. Malnutrition is an interdisciplinary problem, but each discipline—nutrition, food technology, health education, marketing—tends to be a bit over-disciplined in prescribing its own solution. There is a kind of unrealistic parochialism that prevents a clear view of the aggregate problem.

Another impediment is the gap frequently existing between the scientific community and the food industry or, stated another way, between the laboratory and the child's stomach. In essence, the difficulty is one of mutual suspicion.

Food industrialists frequently regard nutritionists and food technologists as academic, ivory-towered types who lack any understanding of the problems of marketing. The premium placed on a signed journal article is generally much greater than that given for the some-

times tedious follow-through required to put these findings to use. In turn, food executives are often perceived as onerous "profiteers," or at best as "tradesmen." The result, in many countries, is a serious lack of substantive collaboration.

Still another difficulty in many protein-poor countries lies in the policy and communications gap between government and the fledgling food industry. In some nations, policies relating to licensing, pricing, and food standards often cause interminable delays and frustration. The result is a severe inhibition of growth. In these countries, the percentage of earnings going into pioneering work, product development, and market testing is considerably smaller than it is in countries with fewer restrictions.

Thus, while promising nutrition activities are taking place in a number of countries, the accomplishments so far fall considerably short of the need. Technologically, malnutrition *can* be overcome. The arduous and expensive task of doing it has hardly begun.

The Communications Gap

The basic fact, perhaps, is that governments which have discussed the need in principle have not faced up to the magnitude of their role. Although governments recognize that an educated populace is important for development—and hence give substantial support to educational systems—there is not yet the same awareness that a well-nourished population has comparable importance.

Perhaps this lack of governmental focus on the importance of nutrition for national growth reflects only an information gap between the laboratory and the political leader that will be overcome in time. Meanwhile, the consequences for national development are increasingly clear. Without improved nutrition in the less favoured two-thirds of the world, the development of human resources—and the development of the nations themselves—is sure to be retarded.

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CAPITALISM, SOCIALISM, AND THE FUTURE OF THE INDUSTRIAL STATE

JOHN KENNETH GALBRAITH

BY ITS NATURE THE DIRECTION of the modern large corporation is a collective, not an individual, function. Decisions are made by groups, not by individuals. That is because technology, planning, and organization all require specialized knowledge. The knowledge of specialists must be combined, and the result is collective authority. It is the authority of amorphous and changing combinations of specialized talent.

Group Activity

In this article I want to look a little more broadly at this group authority, to show how it manifests itself not in the firm with capitalist

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antecedents but in the socialist enterprise. Is it inevitable there? And does it mean that under socialism or communism one will tend to find the same general structure of organization as in the United States and Western Europe? And where, in this industrial development, are we headed?

We may agree at the outset that since technology and planning and organization are what accord power to the group as distinct from the individual, the group will have a decisive authority wherever technology, planning, and organization are features of the productive process. This is a technical matter; ideology is not involved. If decisions require the information of several or many people, power will pass to the several or many, whatever the proclaimed form of the system.

In the non-socialist economies, as the firm develops, it becomes necessary to exclude uninformed authority. This includes the owners. In the 1920's and 1930's and on into the war years, the first Henry Ford insisted on exercising his authority as the sole owner of the Ford Motor Company. It was disastrous. Losses were enormous; the firm very nearly failed. During the war there was discussion in Washington of having Ford taken over and managed by Studebaker.

In the same period, Montgomery Ward suffered somewhat less severely from the similar effort of its chairman, Mr. Sewell Avery. And the creditors of TWA a few years ago made it a condition of their loans that Howard Hughes, the then owner, not exercise his prerogative as owner.

Ford, Avery, and Hughes were not notably stupid men; it was rather that all of these firms had reached the size and technical complexity where group decision-making had to be protected from such interference. Capitalism at its highest development requires there be no capitalist interference.

Public Interference in Public Enterprises

One would expect that a public corporation of similar size and complexity would suffer from similar intervention by cabinet members, politicians, or bureaucrats. But if the latter must be excluded, it means that socialism, similarly, must be without social control. Experience bears out this expectation.

The British, who have a superior instinct for administration, have recognized the need for autonomy for the nationalized industries. These were considerably expanded in number by the Attlee government following World War II. A decisive issue was that of parliamentary

questions and comment. If these were allowed on the decisions of nationalized industries, ministers would have to be informed of such decisions in advance. Otherwise they would confess ignorance and imply neglect of duty.

But important decisions, those which Parliament would be most likely to be concerned with, turn on complex and technical information. So, if the minister were to exercise informed judgment, he would need the help of a technical staff. All this being so, responsibility would be removed from the nationalized firm to the ministry. The cost in delayed decision would also be high.

So, only if parliamentary intervention were excluded could the firm, and therein the decision-making specialists, act responsibly on questions requiring specialized information. All important questions do. Coal, electricity, gas, road transport, the airlines, and the other publicly owned industries were, in consequence, all accorded such autonomy.

This autonomy is even more necessary for large decisions than for small. And it is large decisions that we call policy decisions. The choice between molecular and atomic reactions for the generation of electricity is a policy decision. It is also grounded in a variety of scientific, technical, economic, and planning judgments. Only a committee, or, more precisely, a complex of committees, can combine the knowledge, training, and experience that such a decision requires.

So also with the question of whether the North Atlantic should be flown by American or British aircraft. So, in only slightly less measure, the question of how wage scales are to be revised or the railways rationalized. These are the questions on which Parliament would most expect to be consulted. They are among the ones from which it is most decisively excluded.

Some years ago, Mr. C. A. R. Crosland, the economist and present Minister of Education in the Wilson government, observed that "the public corporation in Britain has not up to the present been in any real sense accountable to Parliament, whose function has been limited to fitful, fragmentary, and largely ineffective *ex post facto* criticism." This is as one would expect.

Remote Irresponsible Bodies

For most socialists the purpose of socialism is control of productive enterprise by the society. And for democratic socialists this means the legislature. None, or not many, seek socialism so that power can be exercised by an autonomous and untouchable corpora-

tion, and yet this is as it must be. It does not matter that the capitalist, the ancient target of the socialist, suffers from the same exclusion and must, like the Rockefellers, Kennedys, and Harrimans, go into politics in order to have power.

Not all admit to this change in capitalism. They observe only how little difference nationalization of an industry seems to mean. As A. M. F. Palmer, a socialist commentator, referring to Britain put it a few years ago: "If an intelligent observer from Mars or Venus should come and examine all large contemporary industrial concerns—public or private—as *working enterprises*, he would notice, I suspect, only their overwhelming sameness."

One result is that a large number of socialists have come to feel that public corporations are, by their nature, and again Mr. Crosland's words, "remote, irresponsible bodies, immune from public scrutiny or democratic control." And in further consequence, a considerable number have given up the fight for public ownership or accord it only lip service. They have agreed, though few have yet recognized it, that democratic socialism, like vintage capitalism, is the natural victim of modern technology and associated organization and planning.

Aggressive Public Control

There have been experiments with more aggressive public control which serve to show that this is not an alternative. In India and Ceylon, and also in some of the new African countries, public enterprises have not, as in Britain, been accorded autonomy. Here the democratic socialist prerogative has, in effect, been fully asserted. The right to examine budgets and expenditures, to review policies, and, in particular, to question management through the responsible minister on all actions of the public corporation has been reserved to the legislature.

And here, as elsewhere, if the minister is to be questioned, he must have knowledge. He cannot plead that he is uninformed without admitting to being a nonentity, a common enough condition in the politics of all countries but one which can never be treated with candour. Technical personnel in these countries are less experienced than in the countries which were industrialized earlier. Organization is less mature. This leads to error, and it further suggests to parliamentarians and civil servants the need for careful review of decisions by higher and presumably wiser authority.

India, in particular, as a legacy of colonial administration has

an illusion of official omnipotence which extends to highly technical decisions. Moreover, poverty makes nepotism and favouritism in letting contracts both more tempting and more culpable than in the rich country where jobs are more plentiful and business is easier to come by. This also seems to call for further review. Rigid personnel and civil service requirements may prevent the easy constitution and reconstitution of groups with information relevant to changing problems.

The effect in these countries of this denial of autonomy has been exceedingly inefficient operations by the public firms. Delay occasioned by review of decision has added its special dimensions of cost. In business operations a wrong decision can often be reversed at little cost when the error becomes evident. But the cost of a delayed decision—in terms of men and capital that stand idle awaiting the decision—can never be retrieved.

Effect of Social Control on Wages and Prices

Social control naturally bears with particular effect on two decisions which are of great popular interest—on the prices to be charged to the public and the wages to be paid to workers. Its effect is to keep prices lower and wages higher than the more authoritarian corporations in the advanced countries would ever allow.

This is no good fortune. It eliminates net earnings and therefore this source of savings. The poor country, which most needs capital, is thus denied the source of capital on which the rich countries most rely.

In India and Ceylon nearly all publicly owned corporations operate at a loss. The situation is similar in other new countries. (One of the sometime exceptions, it is interesting to notice, is the publicly owned airline. It usually claims for itself an autonomy that other public corporations do not have. One possible reason is that public officials are among the principal clients and sense the personal danger in denying airline management the requisite autonomy.)

The poor showing of democratic socialism has, on the whole, been one of the great disappointments of these last years in countries where there has been a concern for industrial development. And the reason rests not with socialism as such, but with the effort to combine socialist industrial management with democracy.

It is part of the modern faith that democracy is both good and omnipotent. Like the family, truth, and sound personal hygiene, it is always above doubt. But it cannot be brought to bear on the deci-

sions of the modern large-scale industrial enterprise. By its nature, this is an autarchy of its managers and technicians.

Autonomy in the Soviet Firm

If autonomy is necessary for the effective performance by the firm, it should be needed also in the Soviet-type economies. The requirement begins with the need to combine the specialized information of different men. This need, to repeat, cannot be dispensed with by any ideology.

The need for autonomy in the Soviet firm could, however, be somewhat less, for its functions are far fewer than those of an American enterprise of comparable size in a similar industry. That is because many of the planning functions performed by the American or European firm are, in the Soviet-type economy, performed by the state.

The large American corporation sets its prices, organizes the demand for its products, establishes or negotiates prices for its raw materials and components, takes steps to ensure supply, and establishes or negotiates rates for various categories of trained and specialized employees.

In the U.S.S.R. these tasks are all performed by the state planning apparatus. Production and investment targets, which are established by the American firm for itself, are also given to the Soviet firm, though with some flexibility in application, by the state.

In consequence, the organization of the Soviet firm is far simpler than that of its American or British counterpart. There are no comparable sales, merchandising, dealer relations, product planning, procurement planning, or industrial relations departments. Most of the top positions are held by engineers. This is in keeping with the much greater preoccupation of the Soviet Union with technical as distinct from planning functions.

Nonetheless, the Soviet firm sets considerable and increasing store by its autonomy. There are two major sources of outside interference in the Soviet Union—the state planning apparatus and the Communist Party.* Soviet economic literature recurrently warns against bureaucratic interference with the operations of the firm. As Professor Ely Devons, a noted British authority, concluded in an

* I have drawn here not only on the vast literature of Soviet planning but on fairly extensive firsthand observation, in the spring of 1959 and more briefly in the summer of 1964. I am extensively grateful to Soviet economists and plant managers for help and hospitality.

article in *The Listener* in 1957:

The Russians have learnt by experience that you cannot have responsible and efficient action at the level of the firm with continuous intervention and instruction from numerous outside authorities. Conflicting instructions from outside give the manager innumerable excuses for failure; waste and inefficiency may result from a serious attempt to run the firm from a distance. Every argument for delegation, decentralization, and devolution used in discussions about business administration in the West is echoed, although in a different jargon, in Russia. And the case for such devolution has been pressed with increasing emphasis as Russian industry has grown and become more complex.

Soviet plant managers, from my own experience, do not hesitate to stress both their need for autonomy and also their past difficulties in this regard. And on the other side, managements, especially those of large firms, have often been condemned for excessive independence—for behaving as “feudal lords” above the law.

Outside Interference

In the Soviet Union the most important medium of social comment after poetry is the novel; one of the half dozen most discussed works since World War II has been Vladimir Dudintsev’s defence of the small, independent inventor against the mindless bureaucracy of the great metal *combinat* in his book *Not by Bread Alone*.

The author’s affections are in close harmony with those of the American who, in the tradition of Brandeis, argues for the genius of the small entrepreneur as against the stolid, unimaginative behaviour of the great corporation. Both have more support from humane instinct than reality. Neither sees that modern technology makes essential the machinery for mobilizing specialized knowledge. It might also be added that Dudintsev’s inventor would never have got the Soviet astronauts into space.

The position of the Communist Party Secretary—the second source of interference—is also predictably difficult. This man enters the plant hierarchy horizontally, as a member of the staff or working force, and is still subject to the external authority of the party. If he participates as a member of the decision-making group, he naturally becomes responsible for its decisions, and therefore he is no longer the independent agent of the party.

If he does not participate, he no longer knows what is going on. If he is too good a source of information, and here I quote from a distinguished authority, Professor Joseph S. Berliner, "He may be raised in party rank but . . . then he will not be able to find out what is going on in the plant. Nobody will have any confidence in him."

Professor David Granick, another authority, concludes that the relationship of the party official is "an uneasy compromise." Given the imperatives of group decision and group's need to protect itself from outside intervention, we see that this is the plausible result.

So, it seems likely that the Soviet resolution of the problem of authority in the industrial enterprise is not so different from that in the West. Like that of the shareholder in the United States or Britain, the authority of the people and party is celebrated in public ritual. They are pictured as paramount, as the stockholder is with us. But in practice, as with us, extensive and increasing power of final decision is vested in the enterprise.

Autonomy Is Not the Market

The trend to decentralization, so called, in the Soviet and other Eastern European countries reflects this growing autonomy. It accords to the firm greater authority over prices, individual wage rates, production targets, investment, and other uses of its earnings. Among the more eager or anxious friends of the price system in the United States, this trend has been widely hailed as reflecting a return to the market. The celebration is premature.

The large Soviet firm is not being made subject to uncontrolled prices, unmanaged demand or to the market prices for its labour or raw materials. Given the level of technology, the related commitment of time and capital, this would no more be possible in the U.S.S.R. than in the United States.

The Soviet firm through decentralization is being given some of the planning functions that Western corporations have long performed. This reflects the need of the Soviet firm to have more of the instruments for successful operation under its own authority. There is no tendency for the Soviet and the Western systems to converge under the authority of the market. Both have outgrown that.

What exists is a very important convergence to the same form of planning under the authority of the business firms. I want now to reflect on the meaning of this development—on the question, Where does all this lead?

The Present Role of Government

In the latter part of the last century and the early decades of this, no subject was more discussed than the future of capitalism. Economists, men of unspecific wisdom, political philosophers, knowledgeable ecclesiastics, and George Bernard Shaw all contributed their personal revelation.

All agreed that the economic system was in a state of development and in time would transform itself into something hopefully better but certainly different. Socialists drew strength from the belief that theirs was the plausible next step in the natural process of change.

Now the future of the modern industrial economy is not much discussed. The prospect for agriculture is still subject to debate; it is assumed to be in a process of transition. So are the chances for the small businessman. But General Motors is an ultimate achievement. One does not wonder where he is going if he has already arrived.

That there will be no further change in institutions that are themselves a result of such vast change is highly implausible. The future of the modern industrial system is not discussed, partly because of the influence it exercises over our belief. We agree that unions, the churches, airplanes, and the Congress lack absolute perfection. The modern corporation, however, is a perfected structure. So it has won exemption from speculation as to how it might be improved.

Additionally, to consider its future is to fix attention on where it already is. Among the least attractive phrases in the American business lexicon are planning, government control, and socialism. To consider the chance for these in the future is to bring home the extent to which they are already a fact.

The government influences industrial prices and wages, regulates demand, supplies the decisive factor of production, which is trained manpower, underwrites much technology, and provides the markets for product of highest technical sophistication. In the formally planned economies of Eastern Europe, the role of the state is not startlingly different. And these things have arrived, at a minimum with the acquiescence, and at a maximum at the demand, of private enterprise itself.

Convergent Tendencies

The next step will be a general recognition of the convergent tendencies of modern industrial systems, even though differently billed as socialism or capitalism. And we must also assume that this is a

good thing. In time it will dispose of the notion of inevitable conflict based on irreconcilable difference. This difference is still cherished by the ideologists on both sides.

To Marxists, the evolution here described, and most notably the replacement of capitalist power by that of technical organization, is unacceptable. Marx did not foresee it, and Marx has always been required by his disciples to have had the supernatural power of foreseeing everything for all time—although some alterations are allowed on occasion in what he is thought to have seen.

And ideologists in the West who speak for the unbridgeable gulf that divides the free from the Communist world are protected by a similar theology, supported in many cases by a rather proud immunity to intellectual influences. But these positions can survive the evidence only for a time. Men lose their resistance when they realize that they are coming to look retarded or old-fashioned. Vanity is a great force for intellectual modernization.

The modern planned economy requires that the state underwrite its more sophisticated and risky technology. The weapons competition provides the rationale for much of this underwriting at the present time. This competition depends, in its turn, on the notion of irreconcilable hostility based on irreconcilable difference between economic systems.

But the fact is convergence. The conclusion follows and by no especially elaborate chain of reasoning. The difference between economic systems, from which the assumption of hostility and conflict derives, does not exist. What exists is an image adhered to on both sides that serves the underwriting of technology. And very obviously, there are other ways of underwriting technology.

To bring the weapons competition to an end will not be easy. But it contributes to this goal, one trusts, to realize that the economic premises on which it rests are not real. None of this disposes of different attitudes on intellectual and cultural freedom and the First Amendment. I set rather high store by these. But these have been thought to be partially derivative of the economic systems.

Myth and Reality of Private Enterprise

Private enterprise has anciently been so described because it was subordinate to the market and those in command derived their power from the ownership of private property. The modern corporation is no longer subordinate to the market; those who guide it no longer depend on ownership for their authority. They must have autonomy within a

framework of goals. But this allows them to work intimately with the public bureaucracy and, indeed, to perform tasks for the bureaucracy that it cannot do, or cannot do as well, for itself. In consequence, for tasks of technical sophistication, there is a close fusion, as we have seen, of the modern industrial system with the state.

As I have earlier observed, the line that now divides public from so-called private organization in military procurement, space exploration, and atomic energy is so indistinct as to be nearly imperceptible. Men move easily across the line. Technicians from government and corporations work constantly together. On retirement, admirals and generals and high civil servants go more or less automatically to government-related industries. One close and experienced observer, Professor Murray L. Weidenbaum, a former employee of Boeing, has called this the "seminationalized" branch of the economy.

He is speaking of firms which do all or a large share of their business with the government. But most large firms do a substantial share of their business with the state. And they are as dependent on the state as the weapons firms for the other supports to their planning. It requires no great exercise of imagination to suppose that the mature corporation, as it develops, will eventually become a part of the larger administrative complex with the state.

In time the line between the two will largely disappear. Men will marvel at the thin line that once caused people to refer to General Electric, Westinghouse, or Boeing as *private* business.

A Penumbra of the State

Although this recognition will not be universally welcomed, it will be healthy. And if the mature corporation is recognized to be part of the state or some penumbra of the state, it cannot plead its inherently private character, or its subordination to the market, as cover for the pursuit of goals of primary interest to its own guiding organization. It can be expected to accept public goals in matters of aesthetics, health and safety, and general social tranquillity that are not inconsistent with its survival.

The public bureaucracy has an unquestioned tendency to pursue its own goals and reflect its own interest and convenience. But it cannot plead this as a right. So with the corporation as its essentially public character comes to be accepted.

Other changes can be imagined. As the public character of the mature corporation comes to be recognized, attention will doubtless focus on the position of the shareholder. This is already anomalous.

shareholder is a passive and functionless figure, remarkable only in his capacity to participate, without effort or even, given the planning, without risk, in the gains of the growth by which the directing organization now measure its success.

No grant of feudal privilege in history ever equalled, for effortless return, that of the American grandparent who thoughtfully endowed his descendants with a thousand shares each of General Motors and IBM. But I do not need to pursue these matters here. Questions of equity as between the accidentally rich have their own special expertise.

Some will insist that the world of the modern large firm is not the whole economy. At the opposite pole from General Motors and Standard Oil is the world of the independent shopkeeper, farmer, shoe repairman, bookmaker, narcotics peddler, pizza merchant, streetwalker, and owner of the car and dog laundry.

Here prices are not controlled. Here the consumer is sovereign. Here pecuniary motivation is unimpaired. Here technology is simple and there is no research or development to make it otherwise. Here there are no government contracts; independence from the state, except possibly for the narcotics trade and prostitution, is a reality.

But one should cherish his critics and protect them where possible from foolish error. The tendency of the great corporation in the modern industrial system to become part of the administrative complex of the state cannot be refuted by appeal to the contrary tendencies of the miniscule enterprise.

The two questions most asked about an economic system are whether it serves man's physical needs and whether it is consistent with his liberty and general happiness. There is little doubt as to the ability of the modern industrial system to supply man with goods—it is able to manage consumer demand only because it supplies it so abundantly. Wants would not be subject to management or manipulation had they not been first dulled by sufficiency.

In the United States, as in other advanced countries, there are many poor people. But they are not to be found within the part of the economy with which we are here concerned. That this article does not deal with poverty does not mean, incidentally, that I am unaware of its existence.

The Prospect for Liberty

The prospect for liberty is far more interesting. It has always been imagined, especially by conservatives, that to associate all, or a large part, of economic activity with the state is to endanger freedom. The

individual in one way or another will be sacrificed to the convenience of the political and economic power so conjoined. As the modern industrial system evolves into a penumbra of the state, the question of its relation to liberty thus arises in urgent form.

In recent years in the Soviet Union and in the Soviet-type economies, there has been a poorly concealed conflict between the state and the intellectuals. It has been between those who speak for the needs of the state and its disciplines, as economic planner and producer of goods, and those who assert the higher claims of intellectual and artistic expression. Is this a warning to us?

The instinct which warns of dangers in this association of economic and public power is quite sound. Unhappily, those who warn look in the wrong place. They have feared that the state might reach out and destroy the vigorous moneymaking entrepreneur. They have not noticed that, all the while, the successors to this vintage hero have been uniting themselves ever more closely with the state and rejoicing in the result. With equal enthusiasm, they have been accepting drastic abridgement of their own freedom. This is partly the price of organized activity.

But they were also losing freedom in the precise pattern of classical expectation. The officers of Republic Aviation, which does all of its business with the United States Government, are no more likely in public to speak critically of some nonsense perpetrated by the Air Force than is the head of a Soviet *combinat* of the ministry to which he reports. No Ford executive will ever fight Washington as did Henry I. No head of Montgomery Ward will ever again breathe defiance of a President as did Sewell Avery in the age of Roosevelt. Manners may be involved here. But most would state the truth: "Too much is now at stake!"

But the problem is not the freedom of the businessman. It can be laid down as a general rule that those who speak most of liberty least use what they have.

The businessman who praises it most is a disciplined organization man. The retired general who now lectures on the threat of Communist regimentation was invariably a martinet who relished an existence in accordance with military regulations. The Secretary of State who speaks most feelingly of the free world most admires the fine conformity of his own thought.

The Goal of the System

The greater danger is in the subordination of belief to the needs

of the modern industrial system. As this persuades us on the goods we buy, and as it persuades us on the public policies that are necessary for its planning, so it also accommodates us to its goals and values. These are that technology is always good; that economic growth is always good; that firms must always expand; that consumption of goods is the principal source of happiness; that idleness is wicked; and that nothing should interfere with the priority we accord to technology, growth, and increased consumption.

If we continue to believe that the goals of the modern industrial system and the public policies that serve these goals are coordinate with all of life, then all of our lives will be in the service of these goals. What is consistent with these ends we shall have or be allowed; all else will be off limits.

Our wants will be managed in accordance with the needs of the industrial system; the state in civilian and military policy will be heavily influenced by industrial need; education will be adopted to similar need; the discipline required by the industrial system will be conventional morality of the community.

All other goals will be made to seem precious, unimportant, or antisocial. We will be the mentally indentured servants of the industrial system. This will be the benign servitude of the household retainer who is taught to love her master and mistress and believe that their interests are her own. But it is not exactly freedom.

If, on the other hand, the industrial system is seen to be only a part, and, as we grow wealthier, a diminishing part, of life, there is much less occasion for concern. Aesthetic goals will have pride of place; those who serve them will not be subject to the goals of the industrial system; the industrial system itself will be subordinate to the claims of larger dimensions of life. Intellectual preparation will be for its own sake and not merely for the better service to the industrial system. Men will not be entrapped by the belief that apart from the production of goods and income by progressively more advanced technical methods there is nothing much in life.

Then, over time, we may come to see industrial society as a technical arrangement for providing convenient goods and services in adequate volume. Those who rise through its hierarchy will so see themselves. And the public consequences will be in keeping. For if economic goals are the only goals of the society, the goals of the industrial system will dominate the state. If industrial goals are not the only goals, other purposes will be pursued.

New Goals

Central among these other purposes is the aesthetic dimension of life. It is outside the scope of the modern industrial system. And that is why the industrial system tends to dismiss aesthetic considerations as precious and impractical and to condemn their proponents as "aesthetes."

The conflict arises in three forms. First and simply, there is the conflict between beauty and industrial efficiency. It is cheaper to have power lines march across the fields; to have highways take the most direct route through countryside or villages or towns or cities; or to allow jet aircraft to ignore the tranquillity of those below; or to pour industrial refuse into the air or into the water.

Next, there is a conflict between the artist and organization. Scientists and engineers can specialize; artists cannot. Accordingly, the organization which accommodates the specialist, though right for the engineer or scientist, is wrong for the artist. The artist does badly as an organization man; the organization does badly by the artist. So the artist tends to stand outside the modern industrial system; and it responds, naturally enough, by minimizing the importance of the aesthetic concerns it cannot easily embrace.

Finally, some important forms of artistic expression require a framework of order. This is notably true of structural and landscape architecture and urban design. It is order rather than the intrinsic merit of their buildings which accounts for the charm of Georgetown or Bloomsbury or Haussman's boulevards. Not even the Taj Mahal would be terribly attractive between two gasoline stations and surrounded by neon signs. Individuals, nevertheless, could have served better their economic interest by rejecting Haussman's designs or by getting a Shell franchise adjacent to the Taj.

The need is to subordinate economic to aesthetic goals—to sacrifice efficiency, including the efficiency of organization, to beauty. Nor must there be any nonsense about beauty paying in the long run. It need not pay.

The requisite order will also require strong action by the state. Because of the abdication of this function in the interest of economic goals, no city, some non-commercial capitals apart, built since the Industrial Revolution attracts any particular admiration. And millions flock to admire ancient and mediaeval cities where, as a matter of course, such order was provided.

The liberalism which allowed every individual and every entrepreneur to build as he wished was faster, more adaptable, and more

THE INDUSTRIAL STATE

efficient, and accommodated site better to need, than anything that could be provided under a "controlled" environment. But the aesthetic effect was at best undistinguished, and more often it was ghastly.

The change in goals and values which is here required is aided by the fact that the modern industrial system is intellectually demanding. It brings into existence, to serve its technical and scientific and other intellectual needs, a very large community of educated men and women. Hopefully this community will, in turn, reject the monopoly of social purpose by the industrial system.

But rewards of time and understanding can also be hastened and enlarged by energetic political action. It is through the state that the society must assert the superior claims of aesthetic over economic goals and particularly of environment over cost. It is to the state that we must look for freedom of individual choice as to toil; for a balance between liberal education and the technical training that primarily serves the industrial system; and it is for the state to reject images of international politics that underwrite technology but at the price of unacceptable danger.

If the state is to serve these ends, the scientific and educational estate and the larger intellectual community must be aware of their power and their opportunity and they must use them. There is no one else.

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THE AGITATED HEART: ROBERT FROST

THEODORE MORRISON

THE ONLY WAY TO DESCRIBE A MAN SO COMPLEX as Robert Frost is to say that he was a bundle of paradoxes, that he was made up of pairs of opposites, both of which were true of him at the same time.

He was, for example, a great man who contained a small man. His intellectual endowment, even apart from poetry, was immense, and at his best he had a wide and sympathetic humanity. He was also capable of seeing enemies where none existed, capable of nursing grudges, and sulking over fancied slights.

A Granite Slab in Disequilibrium

He gave an impression of magnificent sanity, as firmly grounded as a granite slab, and this impression was not false; yet in private his

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complicated balance, as complicated as the motions of a gyroscopic top, could be so disturbed as barely to recover its perilous equilibrium.

Another paradox appears in the first stanza of "Revelation," a little poem in his first book:

*We make ourselves a place apart
Behind light words that tease and flout,
But oh, the agitated heart
Till someone really find us out.*

Frost wanted to be found out—by the right people in the right way. The agitation of his heart to be discovered was intense and did not cease to the end of his life. The man who in his later years became not only an American but an international public figure, who became a father image to television viewers who had never opened one of his books, used light and not-so-light words to tease and flout, both privately and on the platform, and made himself a place apart behind their shelter.

But in the very act of hiding he wanted to reveal himself to those who could see him as he wanted to be seen. He craved a kind of ideal sharing of his poems, a total, intuitive transfer of the poem to the mind of a sympathetic reader or listener, without meddling intervention by study, explication, or dogged analysis. He also craved a similar sharing of his life.

Obsessed by His Own Life

Frost was obsessed by his own life. As his biographer, Lawrance Thompson, has pointed out, and as those who know him were sharply aware, he told many of its episodes over and over again. He was his own Horatio, and in this harsh world drew his breath—in pain, yes; also in pleasure, in wonder, and in a constant battle of self-justification—to tell his story. When the mood was on him, he could spill out confidences with a recklessness the very opposite of the man who made himself a place apart and hid his tracks by teasing and flouting.

In a tart admonition to Sidney Cox, quoted in Lawrance Thompson's *Selected Letters*, Frost informs his friend: "I have written to keep the over curious out of the secret places of my mind both in my verse and in my letters to such as you." Warning enough to any interpreter!

Yet it remains true also that he wanted to make his revelation, both in and out of poetry, and to be found out, in his own way, on

his own terms. He himself has not only revealed but exposed himself to an astonishing extent, in talk and in letters, for better and for worse.

Nothing can prevent the continuing scrutiny of the evidence as it comes to hand, and if much of the scrutiny would be distasteful to him if he would return to us, yet as long as he continued to be Robert Frost he would veer between covering his tracks and laying them so that the right people could follow his trail.

In his later life Frost was accused of casting himself in a role, making himself a legend, acting a part, adopting a persona. The charge was usually brought against him as a public performer, but has recently been extended to the voice we hear in his poems, as though that were an equally nurtured artifice.

On the face of it, in view of the television appearances, the films, the press interviews, the showmanship of his readings, the charge against his public manner can claim a good deal of support. The evidence makes it plausible. Yet to many of those who knew him well, the case is subtler and more difficult than any such one-sided statement of it. And when the charge is carried over to the poems, it becomes even more questionable.

Affectations

What we confront, in trying to deal with charges of this sort, is another of the paradoxes in the man, the pairs of opposites, each true at once. Frost says in one of his letters that no one who is affected can write really well. He had his affectations—who hasn't?

Mrs. Morrison and I used to smile when during World War II Frost would tax Churchill with affecting a Cockney accent, as though Frost himself never affected the rustic. He began one of his most brilliant and delicately felt discourses at the Bread Loaf Writers' Conference with the words, "It says in the Bible, or if it don't, it oughta. . . ."

No doubt my memory exaggerates, but he certainly did not say, "It says in the Bible, or if it doesn't, it ought to. . . ." No doubt he artfully split the difference in the way that made his spoken remarks so inordinately hard to transcribe in print. Yet despite his calculated manner on occasion, he was in a large sense one of the most unaffected men anyone could hope to encounter.

He began another Bread Loaf discourse, shortly after the death of Mrs. Frost, by saying that he had lately kept in his pocket some object he could finger while he talked on the platform, to remind himself that he was the same man in public as in private. Recently,

he added, the object had been a thorn.

In a curious way, despite the showmanship he learned gradually over the years, he was the same man in public as in private. He had the same crotchets, spites, defensiveness through humour and pun and witticism and plain wisecrack, the same greatness and fertility of imagination.

His conversation, at dinner table and in private, was "all of a piece throughout" with the man who spoke on the platform, the man who wrote the poems, except, of course, that the poems arrived at formal perfection—they had *that* kind of artifice—while the talk was half conveyed by a spectrum of gesture and by the expressive play of loose flesh over the magnificent structure of his skull.

The Dramatic Element

Naturally, Frost's poems are full of the dramatic. He is dramatic in that he can create characters who are not mere phases of his own sensibility. He is dramatic in the stricter sense that a surprising number of his narratives make natural stage pieces as they stand.

No one ever emphasized more than he did the element of play in literature. I used to think he emphasized it to excess, often as a covert form of his peculiar defensiveness, a way of keeping "the over curious out of the secret places" of his mind. If we undertake to see the man in his work, we must make ample allowance (as I cannot do here) for the places where biography is *not* significantly present, as well as trying to understand it where it is.

Perhaps enough has been said on the complexities and paradoxes of Frost the man to serve as prelude to an examination of a particular group of his poems. These are poems in which he may at first seem out of character, very different from the accepted impression of him, or in which his life is a powerful though concealed presence, or in which he approaches the esoteric—a word which may surprise Frost readers, but which has its application.

Of course, Frost is not esoteric in the sense of having a private doctrine to peddle through a circle of initiates, but I think it fair to say that he comes close to the esoteric when he publishes a poem that cannot be understandingly read without clues divulged to friends.

'The Lovely Shall Be Choosers'

Such a poem is "The Lovely Shall Be Choosers." The general scheme of the action in this poem stands out clearly enough, but its

treatment in detail is sufficiently secretive and allusive so that it has misled both private readers and public commentators.

A woman of dignity and beauty is to be punished for her choice in marriage, the consequences of which do not lie within her foresight or control. The punishment is to be carried out by joys which form an ironic parallel to the seven joys of Mary, ironic because each joy is a grim compensation for pain and humiliation. The progressive punishment takes place in an eerie metaphysical frame.

The poem, except for a single passage of description, consists of a dialogue between "The Voice," who is supreme in the poem, and "Voices," who are obviously subordinate agents of the omnipotent Voice, his officers appointed to carry out the relentless chastisement.

The place that punishment occupied in Frost's mind deserves a word. Punished physically and severely himself in childhood by his father, Frost could not exclude from his view of things a sort of metaphysical sense of the rightness or ultimacy of the punitive.

The God, or "Voice," who rules in the world of "The Lovely Shall Be Choosers" speaks with a note of outright authoritarian sarcasm in the lines: "*She would refuse love safe with wealth and honour! / The lovely shall be choosers, shall they?*"

Yet, and this is of highest importance to the poem, the Voice that orders the lovely chooser hurled seven levels down the world by means of seven joys that are so many pains also orders that at every stage she shall be left blameless.

Frost's Mother

The woman was Frost's mother, to whom he was peculiarly close. Frost made the identification himself, more than once, to more than one person. Mrs. Morrison has said to me and others that in all the uncounted hours she spent as Frost's secretary, listening to him disburden himself of his life, past and present, while often enough she ached to get an important letter written or an essential decision made, his mother was the one human being of whom she never heard Frost say an ill word.

We could hardly guess how many times, after one of his public triumphs in later life, we have heard him repeat, with doggerel emphasis that did not conceal how much he meant by it, the words of the old song or catch he could not forget: "I wish my mother could see me now."

Those who think his platform manner was entirely a calculated artifice could well give a thought to this telltale refrain. He slept in

his mother's room until at least well into his high school years. Another of the paradoxes in this man of complexity was the combination in him of something very like mother fixation with the full measure of virility he brought to his marriage.

His own marriage is a subsequent story. About the marriage of his parents, Frost formed a suspicion that in retrospect can be viewed only with a certain amusement. For a long time Frost misdated his birth, making himself younger by a year than he actually was.

After the death of his father, Frost's mother brought him and his younger sister from San Francisco to live with the Frost grandparents in Lawrence, Massachusetts. Frost believed, justly or not—for the poem the *belief* is what matters—that his grandparents looked down on his mother, and even by insinuation accused her of luring or perhaps trapping his father into marriage.

The Seven Joys

He suspected that as the first child he might have arrived unconventionally early. This suspicion pretty plainly underlies the first of the ironic joys in the poem: "*Be her first joy her wedding, / That though a wedding, / Is yet—well something they know, he and she.*"

The second joy introduces the friends among whom she stood, proud herself and a pride to them, in the one descriptive passage in the poem, friends left behind at a distance when Mrs. Frost followed her husband to San Francisco. Among them, one supposes, was the man she might have married "safe with wealth and honour."

Her second joy is plainly called a "grief"; its only joy is that she can keep it secret. The friends know nothing of it to make it "shameful." And her third joy is that although now they cannot help knowing, "*They move in pleasure too far off / To think much or much care.*"

What was this grief that might have put her in a shameful light to the far-off friends? The same suspicion that led Frost to misdate his birth may continue to be at work in the second and third joys, but it seems plain that another motif enters as well.

Frost learned of, or at least came to believe in, his father's infidelity, or at any rate indiscreet conduct. His sense of his mother's humiliation by his father's public attentions to another woman may well be the chief element in the two joys that turn on her grim comfort in knowing that her friends were too remote and preoccupied to think much of her. She had indeed chosen, as it turned out, the opposite of love safe with wealth and honour.

The succeeding joys, through the sixth, deal progressively with

that Frost believed (as he says in "Education by Poetry") that metaphor, analogy, the perception of one thing in terms of another are at the root of understanding itself.

To quote Frost again in words taken down by Hyde Cox, "Christ in Mark and Matthew is speaking about understanding."

"Directive" is a riddling invitation to those who are capable of it to go, starting from confusion, back to whatever source their hearts venerate, and to find there the wholeness they may not have known since the forward journey innocently began.

If the poem were to be regarded for its intellectual content, as a reasoned philosophic or ethical position, it would be vulnerable to attack or scepticism from many sides; but (to me at any rate) its force and depth do not lie on the intellectual plane, but on the emotional. I find it one of the most moving poems Frost or anyone has written.

Under its deceptive intimacy and easy play of surface, it is dark and solitary, charged with a great pathos. The wholeness it asserts is won at the cost of counting up terrible penalties. It is a religious poem, not in any doctrinal or ritual sense, but in the sense that it is charged with a profound piety.

Those who can follow the guide and be saved are those who have some poetry in them, whether they write or even read poetry or not. They are those who could understand Robert Frost as he wanted to be understood.

To them he would not have cared how much of himself he revealed, or how intimately they found him out. If they read his work with understanding, they will find the man himself spread through it and exposed in startling ways.

THEODORE MORRISON is an American poet and novelist. His poetical works include *"The Serpent in the Cloud"* (1931), *"Notes of Death and Life"* (1935), and *"The Dream of Alcestis"* (1950). *"The Stones of the House"* (1953) is his well-known novel.

something original has been contributed to it. . . .

"It would be the poet's directive that one must go back to what he believes in his heart to be the source; and to the extent that he had saved something aside, removed from worldly experience—unpolluted, he would be able to contribute something himself."

Then, in words as nearly as possible verbatim from Frost himself: "Not everyone can get saved as Christ says in Saint Mark. He almost says, 'You can't be saved unless you understand poetry—or you can't be saved unless you have some poetry in you.'"

Going on with Hyde Cox's notes: "The waters and the watering place are the source. It is there that you would have to turn in time of confusion to be made whole again: whole again as perhaps you haven't been since leaving childhood behind. Aging, you have become involved in the cobwebs and considerations of the world. . . ."

And again verbatim: "People miss the key to the poem: the key lines, if you want to know, are '*Cold as a spring as yet so near its source, / Too lofty and original to rage.*' . . . But the key word in the whole poem is source—whatever source it is."

For Frost the often playfully presented but deeply grim journey back through time and across human defeat and disaster was a journey upstream through a life given to poetry, but a life he constantly felt a need to justify to himself.

Remembering only some of the catastrophes of that life, one can well understand why—a first son who died in infancy, a grown son who shot himself, a beloved daughter who died needlessly of septicemia, a wife whose death in his mid-career left him in a state of terrible doubt and self-accusation.

To Justify Himself

Frost's battle to justify himself was a classic form, with its own complications, of the dilemma of the greatly gifted who try to meet two commitments at once—the commitment to some form of lofty originality, and the commitment to common human ties and responsibilities.

But if poetry is at the heart of "Directive," it is poetry in the largest sense, not merely poetry as the gift of writing poems. The poetry at the heart of "Directive" is only one of many possible manifestations of a "source" at work.

Loftiness and originality can manifest themselves in a religion, or in science, or in statesmanship. The believer, the scientist, the statesman would have to have some poetry in him, in just the sense

as for poetry; only those who approach it in the right way can understand it. And not everyone can understand no matter what they do because it just isn't in them. They cannot 'be saved.'... and R.F. quickly connected this quotation with the thought that unless you come to the subject of poetry 'as a child' you cannot hope to enter into 'the kingdom of heaven.' "

"From this evening on," Hyde Cox writes, "the quotation from St. Mark... began to appear in R.F.'s conversation and... in his public talks." Mrs. Morrison and I can bear similar testimony. Nor did he drop his play with this topic after the publication of "Directive."

He came back to it in his prose piece "A Romantic Chasm," reprinted in *Selected Prose*. And Hyde Cox points out that he reverted to it as late as 1962 in his last public appearance at Dartmouth College, when he announced: "In the Bible it says... twice it says 'these things are said in parables... so the wrong people won't understand and so get saved.' It's thoroughly undemocratic."

A joke, but much more than a joke. No one will challenge Frost's sometimes uneasy and doubtful love of his country. No one will challenge his fundamental sympathies with democracy. But he was constantly straining at the problem of "the common man," a phrase often on his lips.

He used to say he was an egalitarian who could only be comfortable with his equals. He did not expect everyone to be saved, by the welfare state or any other agency—saved from his own obtuseness or limitation or downright misfortune. He accepted the heart of the parable: the sower sows the "word," but some of the seed falls on barren ground.

Hyde Cox's notes of a later conversation, after the appearance of "Directive" in print, make still more explicit what his play with St. Mark meant to Frost. During this subsequent talk, Hyde said he had heard so much discussion of "Directive" he would like to pin Frost down to keep the record straight.

Back to the Source

"I began," Hyde writes, "by telling him some people interpreted the poem as more Christian than most of his work." Frost answered, according to Hyde's notes, that "the poet is not offering any general salvation—nor Christian salvation in particular.

"In the midst of this now too much for us he tells everyone to go back... to whatever source they have. The source might even be a conventional religion... but religion is most of all valuable when

children's playhouse.)/ Here are your waters and your watering place. / Drink and be whole again against confusion." Your waters, reader! You have only to reach out and drink!

But first go back and weigh two lines I omitted, lines immediately following the word "Grail": "*A broken drinking goblet like the Grail / Under a spell so the wrong ones can't find it, / So can't get saved, as St. Mark says they mustn't.*" You are invited to drink from a broken goblet like the Grail, an object therefore with something sacred and redemptive about it; but the goblet is under a spell. It is not for everyone. The wrong ones cannot find it, and so cannot be redeemed. St. Mark himself says they must not be.

The Fourth Chapter of St. Mark

The particular passage of St. Mark that Frost had in mind is essential to understanding "Directive." It occurs in the Fourth Chapter, immediately after the parable of the sower and the seed: "And when he was alone, they that were about him with the twelve asked of him the parable. And he said unto them, Unto you it is given to know the mystery of the kingdom of God: but unto them that are without, all these things are done in parables: That seeing they may see, and not perceive; and hearing they may hear, and not understand; lest at any time they should be converted, and their sins should be forgiven them."

At this point I must express a grateful indebtedness to Hyde Cox, a friend of Frost's for many years, and the co-editor of Frost's *Selected Prose*. With utmost generosity, Hyde Cox has allowed me to make free use of his notes of conversations with Frost bearing on the origin and meaning to Frost himself of "Directive."

The poem appeared in the volume *Steeple Bush*, published in 1947. Hyde Cox has written me that during an evening earlier in the forties he asked Frost whether he remembered the reply Jesus gave his disciples when they asked why he always spoke to crowds in parables.

In Hyde Cox's words, "R.F. did not remember. Like many other people, it was his recollection that Christ said something about parables being easier to understand. I gleefully pointed out that this was just the opposite of what Jesus had said, and I read to R.F. the Fourth Chapter of the Gospel according to Saint Mark. He was delighted and said at once 'Does that occur anywhere else?'

"I then read him the Thirteenth Chapter of Matthew especially verses 11-13! The rest of the evening was spent discussing the wisdom and the hardness of this thought. R.F. pointed out that is the same

of the equivocal. This is no such simple beckoning gesture as "I'm going out to clean the pasture spring . . . You come too." It will not help to be reminded of St. Mark, the eighth chapter, the thirty-fifth verse: "Whosoever shall lose his life for my sake . . . the same shall save it."

For the journey in "Directive" is not concerned with losing one's life for Christ's sake. The important use that Frost makes of St. Mark comes later in the poem; but even at this point the reader who is addressed as "you" should be on his guard. Not everyone may choose to follow a guide who undertakes to see that his follower gets lost; not everyone may be able to stay with such a guide until, as the poem later says, he is lost enough to find himself.

Backward Through Time

As the journey goes on, the "you" grows more and more ambivalent. The address to the reader begins to sound like an internal address of the poet to himself; but still the "you" leaves room for the reader to follow the guide—if he will and if he can.

The journey is a journey backward through time, extended through the "book" of geology to an almost cosmic scope. *"And there's a story in a book about it: / Besides the wear of iron wagon wheels / The ledges show lines ruled southeast northwest, / The chisel work of an enormous Glacier / They braced his feet against the Arctic Pole."*

But though it is presented with Frost's deceptive charm and whimsicality, the journey is strewn with traces of human loss and defeat. "Two village cultures" have vanished; the only field now left about the deserted house on the deserted farm is "no bigger than a harness gall."

The journey passes the children's playhouse with its shattered playthings — *"Weep for what little things could make them glad."* It passes the house that was a house in earnest, which has become no more than a *"be-lilaced cellar hole, / Now slowly closing like a dent in dough."*

But the destination of the journey lies beyond all these human relics of defeat. It is the brook that gave water to the house, *"Cold as a spring as yet so near its source, / Too lofty and original to rage."*

At this point the guide, who has hitherto used the third person, though covertly he has been the poet all along, speaks for the first time in the first person. He is no longer "a guide"; he is "I." *"I have kept hidden in the instep arch / Of an old cedar at the waterside / A broken drinking goblet like the Grail . . . (I stole the goblet from the*

growing dim. / He no more drew the smile he sought. / The story is she died of thought."

In a letter to Bernard DeVoto, quoted in Thompson's *Selected Letters* and written soon after Elinor's death, Frost said: "I suppose love must always deceive. I'm afraid I deceived her a little in pretending for the sake of argument that I didn't think the world as bad a place as she did. My excuse was that I wanted to keep her a little happy for my own selfish pleasure. It is as if for the sake of argument she had sacrificed her life to give me this terrible answer. . . ."

At the end of the poem, the naming of the bay where the stolen lady died for her lover instead of for her, in itself a trivial injustice, is exalted into one of those sobering generalizations Frost is capable of.

The distribution of rewards, both historic and personal, is put forward with chilling detachment: "*The island he found was verified / And the bay where the stolen lady died / Was named for him instead of her. / But so is history like to err, / And soon it is neither here nor there / Whether time's rewards are fair or unfair.*"

Poets before have found circuitious ways of transforming their profoundest feelings into impersonal, objectified works. Surely "The Discovery of the Madeiras," going all the way around through Hakluyt and the captain's story of the slave ship, must be one of the most remarkable examples of such transformation to be found anywhere.

'Directive'

Many of Frost's poems unite concealment with revelation hazarded or hoped for, but it is in "Directive" that he makes his most explicit avowal of that strain in him that I have called the esoteric.

The poem begins by posing a state of confusion. Its first line, composed of nothing but monosyllabic adverbs, prepositions, and pronouns—"Back out of all this now too much for us"—could surely come from no other poet writing in English. The little pronoun "us" is interesting.

This opening line seems to address confused human beings inclusively, but a change rapidly occurs. The "us" becomes "you," and speciously the poem singles out and isolates each individual reader as the object of an invitation to accompany a guide on a journey to a house that no longer shelters anyone, on a farm that has all but gone back to woods. "*The road there, if you'll let a guide direct you / Who only has at heart your getting lost . . .*"

Already the invitation to the reader as "you" takes on a note

reasons, seems to have been a policy agreed on between them.

Frost intimated as much to Mrs. Morrison, using an evasive phrase such as "it was thought best. . . ." And he did not conceal that during the days when Elinor was approaching death he waited and hoped, vainly, for some word or sign from her saying, in effect, that the marriage had been worth its griefs and difficulties.

The absence of the hoped-for word, under the circumstances, is hardly to be wondered at. It tells us, as much as anything, of Frost's own perpetual need for self-justification, and of his capacity on occasion, despite his formidable ego, for seeing into the lives and needs of others, for sometimes doubting his own assumptions, for compunction and self-questioning, without which he wouldn't have needed self-justification.

Remembering Frost's jealous suspicion during courtship that Elinor had pledged herself to another man, remembering the difference at the centre of "The Subverted Flower," remembering the "terrible possessor" of "Paul's Wife," and not forgetting the idyllic unitedness of "West-running Brook," a reader may well be startled to look again at "The Discovery of the Madeiras."

The Lover and His Lady

The lover and his "stolen" lady set out on their voyage to "some vague Paphian bourn," and when the ship had ceased tossing enough for her to come on deck, "*she and her lover would sit opposed / And darkly drink each other's eyes . . . The most he asked her eyes to grant / Was that is what she does not want / A woman wants to be overruled.*"

Then the captain tells the lover his story of the black pair on the slave ship who, because the man was infected by plague and the girl had not bothered to conceal her intimacy with him, were bound naked, face to face, and pitched overboard in a parody of marriage. "*When after talk with other men / A man comes back to a woman again / He tells her as much of blood and dirt / As he thinks will do her not too much hurt.*"

But in allowing himself a moment of pique under her questioning and retelling the captain's story to his stolen lady, the lover miscalculates his effect. "*Seeing no help in wings or feet / She withdrew back in self retreat / Till her heart almost ceased to beat. / Her spirit faded as far away / As the living ever go yet stay.*"

When by the lover's request the pair are landed and the ship abandons them, "*slowly even her sense of him / And love itself were*

*Murphy's idea was that a man like Paul
Wouldn't be spoken to about a wife
In any way the world knew how to speak.*

'The Discovery of the Madeiras'

Another of Frost's most brilliant performances, so brilliant as a feat of poetic expression as to dazzle belief while one reads it, is "The Discovery of the Madeiras." Like "The Subverted Flower," this poem may be read as an entirely self-contained and lucid imaginative work, without reference to any personal roots, though under the surface they are all-importantly present.

The poem has for subtitle "A Rhyme of Hackluyt," and with one important exception it does follow in narrative outline a prose document in Hakluyt's *Voyages*. Aside from the story, everything in the poem is Frost's, of course, except two key phrases he modified from Hakluyt, "stolen lady" and "died of thought."

The important exception, the episode he did not find in Hakluyt, is the episode of the slave ship told by the captain of the vessel on which the lover and his stolen lady are sailing. Where Frost got this episode, unique in his work in the kind of human degradation it represents, I have no idea.

If anyone should wonder how Frost came to write this poem, the answer would lead us again through his life, and especially his marriage. Elinor White was an intelligent and gifted woman; as a young woman, she must have been strikingly beautiful.

On those who were acquainted with her only in her later years, and only slightly, as I was, she could make an impression of austerity, of being a deeply solitary spirit. The paired solitude reflected in "West-running Brook" seemed to have become for her, at least in part, a solitude of one, single and withdrawn.

To marry Robert Frost was no light undertaking for any woman. If the part she accepted made demands on her over the years to give way to his will, if sacrifice eventually took its toll, the result is hardly surprising.

That an area of alienation came to exist between her and her husband is more than a suspicion. At least in her later years, she did not attend his public performances, even such a triumph as his Norton Lectures at Harvard, where on the spring afternoon of his final appearance, after the series had been transferred to the largest hall available, people climbed the fire escapes and perched on the grating to hear him through the windows. Her absence, for whatever

She sees the shame by which the man begins to be overwhelmed at the sound of her mother's voice. "*A hand hung like a paw . . . A coward save at night, Turned from the place and ran. / She heard him stumble first / And use his hands in flight. / She heard him bark outright.*"

The girl is on the whole gently reproached in the poem for "her own too meagre heart," which subverts the innocence of the intermediary flower, prevents her from making any response except one of disgust, and reduces the man to the status of a beast in his own eyes.

Yet surely the remarkable thing in the treatment of this harrowing scene is the poet's capacity to see the man's part through the girl's eyes, to understand and sympathize with the image of repulsion he presents to her, repulsion so violent that the words she spits leave traces about her mouth. "*Her mother wiped the foam / From her chin, picked up her comb / And drew her backward home.*" These relentless final details, expressed in the bluntest nouns and verbs except for the one charged adverb "backward," may leave the reader not so much poetically satisfied as shuddering or squirming.

Yet in expression "The Subverted Flower" shows Frost at the top of his bent. In the rapid compression of its narrative, in the spring and inventiveness of its idiom, in the resourcefulness of its rhyming, in the prosody of its quick trimetre lines that require nothing less than a master hand, it is among the most dazzling of his performances.

Possessiveness, jealousy, self-will! These may seem unlovely traits, but in the complexities of human nature they are not incompatible with romantic idealization, nor with deep and lasting, however troubled, attachment. They turn up in odd places in Frost, even in so odd a poem as "Paul's Wife."

'Paul's Wife'

The question is whether Paul Bunyan had a wife. He did. Murphy was witness to her mythic origin. Why was Paul so secretive about her? When Murphy, the ostensible narrator of the poem, sums up, he becomes a laughably thin disguise:

*Murphy told me Paul put on all those airs
About his wife to keep her to himself.
Paul was what's called a terrible possessor.
Owning a wife with him meant owning her.
She wasn't anybody else's business,
Either to praise her, or so much as name her,
And he'd thank people not to think of her.*

printed in Thompson's *Selected Letters*, Frost wrote: "Pretty nearly every one of my poems will be found to be about her if rightly read." Reflections of the marriage, and of Frost's attitude towards marriage, in fact occur in surprising places in his work.

'The Subverted Flower'

"The Subverted Flower," unlike "The Lovely Shall Be Choosers," is fully intelligible as a poem without extrinsic clues. It presents an encounter of a sort unusual in Frost's work, an encounter between a girl who is unready for a virile advance and a man who is humiliated and driven to flight from her terror and disgust when he is interrupted by her mother's call.

Frost himself let it be known that Mrs. Frost would never allow him to publish "The Subverted Flower" during her lifetime. If this hint is not enough, the fundamental sexual difference with which the poem deals is sufficiently confirmed by Thompson's biography.

Why, someone may ask, more concerned for propriety than for poetry, did Frost write the poem in the first place or publish it after his wife's death? The answer must be that Frost was not exempt from the common rule that for a poet the writing of his poems is paramount. Let him see, in any kind of material, a poem to be made, and few if any forces, public or private, can contend against the right of the poem to come to birth.

And, of course, whatever the experience he is dealing with, in becoming a poem it undergoes a transformation. Its roots go underground, and what counts is the plant that shows itself in open air. Of course, again the poem makes use of elements that were not in the original experience at all, the very elements that make it a poem.

What must chiefly strike the reader of "The Subverted Flower" is its extraordinary manipulation of animal imagery. Animal imagery, we may say retrospectively, was inevitable to this poem once it started to become a poem, but I should be hard put to it to think of another in which such imagery is used with like force, at once compressed, sustained, and inventive.

The girl sees the man's attempted smile of entreaty as one that "cracked his ragged muzzle." The effort to force out words makes him "*choke / Like a tiger at a bone.*" She is afraid to "*stir a foot / Lest movement should provoke / The demon of pursuit / That slumbers in a brute.*"

At her mother's call, she steals "*a look of fear / To see if he could hear / And would pounce to end it all / Before her mother came.*"

treatment in detail is sufficiently secretive and allusive so that it has misled both private readers and public commentators.

A woman of dignity and beauty is to be punished for her choice in marriage, the consequences of which do not lie within her foresight or control. The punishment is to be carried out by joys which form an ironic parallel to the seven joys of Mary, ironic because each joy is a grim compensation for pain and humiliation. The progressive punishment takes place in an eerie metaphysical frame.

The poem, except for a single passage of description, consists of a dialogue between "The Voice," who is supreme in the poem, and "Voices," who are obviously subordinate agents of the omnipotent Voice, his officers appointed to carry out the relentless chastisement.

The place that punishment occupied in Frost's mind deserves a word. Punished physically and severely himself in childhood by his father, Frost could not exclude from his view of things a sort of metaphysical sense of the rightness or ultimacy of the punitive.

The God, or "Voice," who rules in the world of "The Lovely Shall Be Choosers" speaks with a note of outright authoritarian sarcasm in the lines: "*She would refuse love safe with wealth and honour! / The lovely shall be choosers, shall they?*"

Yet, and this is of highest importance to the poem, the Voice that orders the lovely chooser hurled seven levels down the world by means of seven joys that are so many pains also orders that at every stage she shall be left blameless.

Frost's Mother

The woman was Frost's mother, to whom he was peculiarly close. Frost made the identification himself, more than once, to more than one person. Mrs. Morrison has said to me and others that in all the uncounted hours she spent as Frost's secretary, listening to him disburden himself of his life, past and present, while often enough she ached to get an important letter written or an essential decision made, his mother was the one human being of whom she never heard Frost say an ill word.

We could hardly guess how many times, after one of his public triumphs in later life, we have heard him repeat, with doggerel emphasis that did not conceal how much he meant by it, the words of the old song or catch he could not forget: "I wish my mother could see me now."

Those who think his platform manner was entirely a calculated artifice could well give a thought to this telltale refrain. He slept in

his mother's room until at least well into his high school years. Another of the paradoxes in this man of complexity was the combination in him of something very like mother fixation with the full measure of virility he brought to his marriage.

His own marriage is a subsequent story. About the marriage of his parents, Frost formed a suspicion that in retrospect can be viewed only with a certain amusement. For a long time Frost misdated his birth, making himself younger by a year than he actually was.

After the death of his father, Frost's mother brought him and his younger sister from San Francisco to live with the Frost grandparents in Lawrence, Massachusetts. Frost believed, justly or not—for the poem the *belief* is what matters—that his grandparents looked down on his mother, and even by insinuation accused her of luring or perhaps trapping his father into marriage.

The Seven Joys

He suspected that as the first child he might have arrived unconventionally early. This suspicion pretty plainly underlies the first of the ironic joys in the poem: "*Be her first joy her wedding, / That though a wedding, / Is yet—well something they know, he and she.*"

The second joy introduces the friends among whom she stood, proud herself and a pride to them, in the one descriptive passage in the poem, friends left behind at a distance when Mrs. Frost followed her husband to San Francisco. Among them, one supposes, was the man she might have married "safe with wealth and honour."

Her second joy is plainly called a "grief"; its only joy is that she can keep it secret. The friends know nothing of it to make it "shameful." And her third joy is that although now they cannot help knowing, "*They move in pleasure too far off / To think much or much care.*"

What was this grief that might have put her in a shameful light to the far-off friends? The same suspicion that led Frost to misdate his birth may continue to be at work in the second and third joys, but it seems plain that another motif enters as well.

Frost learned of, or at least came to believe in, his father's infidelity, or at any rate indiscreet conduct. His sense of his mother's humiliation by his father's public attentions to another woman may well be the chief element in the two joys that turn on her grim comfort in knowing that her friends were too remote and preoccupied to think much of her. She had indeed chosen, as it turned out, the opposite of love safe with wealth and honour.

The succeeding joys, through the sixth, deal progressively with

the unhappy satisfaction of pride. Give her a child at either knee so that she may tell them once, unforgettably, how she used to walk in brightness, but give her new friends so that she dare not tell, knowing her story would not be believed. Then give her the painful joy of pride that she never stooped to tell. Then make her among the humblest seem even less than they are.

Why should Isabel Moodie Frost have come to seem, at least as her son imagined her case, less than the humblest? Isabel Moodie seems to have been a beautiful and gifted woman, but her gifts were intellectual and spiritual. They did not extend to dressing smartly or keeping house in a meticulous New England fashion or disciplining rowdy children in a schoolroom.

Her sixth joy is the comfort of knowing that her way of life, as a widow trying in pinched circumstances to bring up two children by schoolteaching, is one she comes to from too high too late to learn.

Her seventh and final joy turns on the word *one*, italicized by Frost himself in the printed text. "*Then send some one with eyes to see . . . And words to wonder in her hearing how she came there / But without time to linger for her story.*" I have no express warrant in anything I ever heard Frost say for asserting that this *one* is Robert himself, Isabel Moodie's son, but this interpretation is so natural as to be inevitable. What is the whole poem except the poet's vision of his mother's life?

Retrospection

We must keep in mind that while in substance the poem is retrospective, a vision of a woman's life after the fact, in form it is anticipatory. The Voice is giving orders to the Voices that they are to carry out over a period of twenty years. "*How much time have we?*" / "*Take twenty years. . .*"

Of course, this figure is a round number, but by two decades, give or take a little, after Isabel Moodie's marriage—the central *choice* from which everything follows—her son could well have been old enough to "wonder in her hearing how she came there." And by the same token his own expanding life, the battles of late adolescence or early manhood, would deprive him of "time to linger for her story."

Time and growth were needed if he was to be "sent" on this particular mission of understanding, yet time and growth defeat the mission, so that her seventh joy is "*her heart's going out to this one / So that she almost speaks.*" Almost.

She is left with the barren pride of never in fact telling "how once

she walked in brightness," never directly telling even the son to whom her heart went out, as Isabel Moodie's unquestionably did to her son, Robert Frost. "That Rob can do anything" was a refrain she spoke often in his hearing, and that he himself often repeated to others.

What happens to the poem when the reader is given the necessary clues? Surely the gain in clearness does not destroy but deepens and vindicates the mysterious and visionary power of "The Lovely Shall Be Choosers."

The poem is as truly a feat of imagination as if it had been written about an altogether fictitious character and not about the poet's mother. All characters become imaginary in the act of being imagined, and in this sense Isabel Moodie becomes an imaginary character in the poem devoted to her.

The poem, which is not without a strain of bitterness and of guilt, is a metaphysical vision. But we do not have real access to the content of the vision until we know who the characters are, and when we know, it is not merely a persona or mask we hear speaking. It is the actual son of an actual mother, since the son happens to be a poet.

Elinor White Frost

Frost's mother left a lifelong imprint on his memories and his deepest emotions. The second person of utmost importance to him was his wife. One has the impression that Frost and Elinor White were destined for each other by a fatality as deep as ever united a human pair in marriage. Yet there was much that was unpropitious for her in the stormy courtship to which he subjected her.

Now that the first volume of Lawrance Thompson's biography has appeared—an absorbing work, rich in material and deeply understanding—the tenor of this courtship has become a matter of record.

Frost was in no mean degree jealously suspicious of Elinor while she was away at college. He was possessive, also in no mean degree. He subjected her to an assault of self-will by which he was himself later to be troubled in memory. At one point, in despair of gaining her compliance, he made his defiant flight to the Dismal Swamp in Virginia, leaving his friends and family in ignorance of his whereabouts or even his continued existence.

One side of the eventual marriage is reflected in such an idyll as "West-running Brook," but it had other sides. It was haunted and troubled not only by personal catastrophes but by differences of temperament.

After Mrs. Frost's death, in a letter to Mr. and Mrs. G. R. Elliott,





QUEST FOR WATER

THE UNITED STATES INFORMATION SERVICE in cooperation with a large number of Indian educational institutions is displaying at many locations in India during the present academic year an exhibit called "Quest For Water."

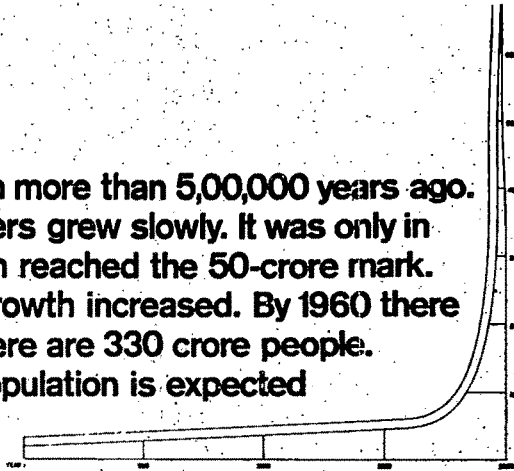
It describes the importance of water for human life, for food, power, recreation, and natural beauty.

It illustrates the problems of flood, drought, erosion, salinity, and sanitation.

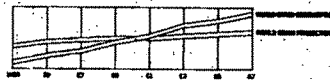
And it depicts the many ways in which the beneficent potential of water may be brought to the service of mankind.

From among the hundreds of pictures and charts in the exhibit, those on the following pages were chosen for reproduction here because of their beauty as photographs and because, without captions, they speak for themselves.

Man appeared on the earth more than 5,00,000 years ago. In the beginning his numbers grew slowly. It was only in 1650 A.D. that the population reached the 50-crore mark. From then on the rate of growth increased. By 1960 there were 300 crores. Today, there are 330 crore people. By 2000 A.D., the world's population is expected to reach 700 crores.



How are we going to feed, clothe, house and educate these people?



The most serious problem will be a critical world food shortage. Production of more food calls for better farming practices, fertilizers, seeds, pesticides and proper management of water resources.

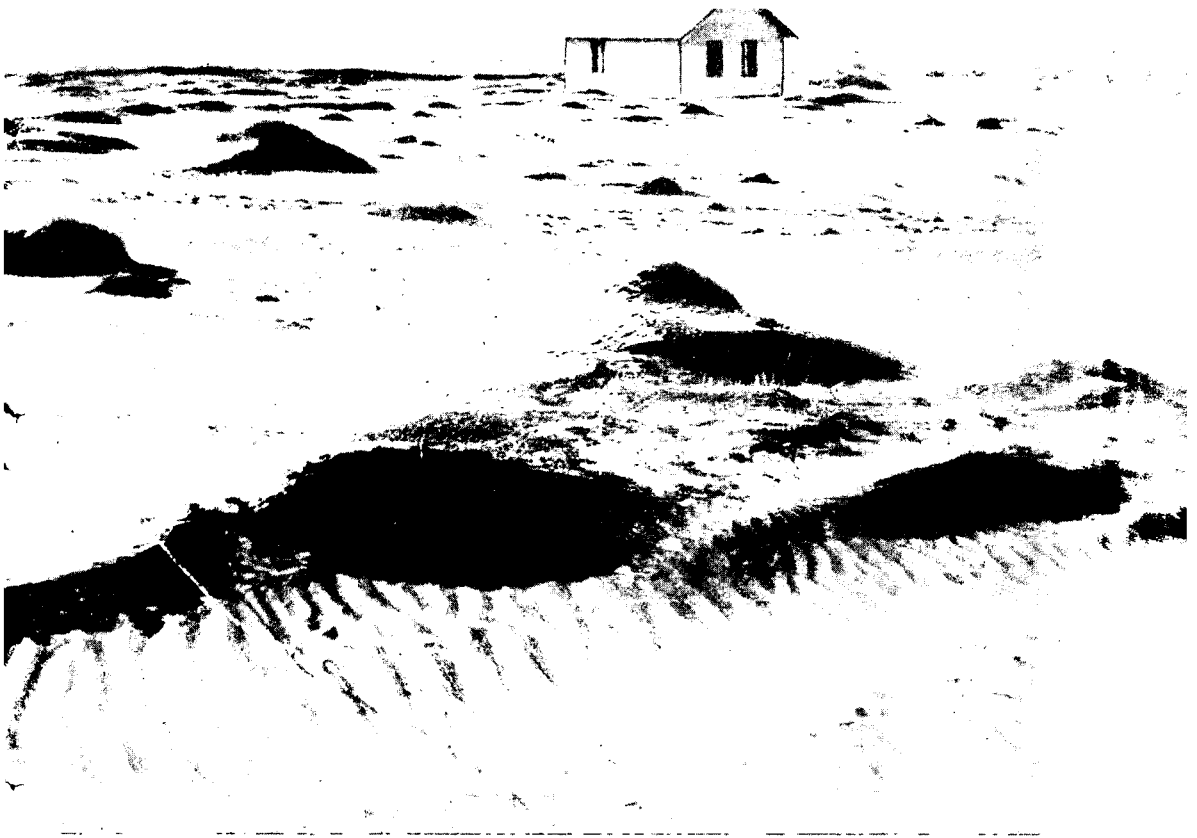
This exhibit deals with one of these elements...water.

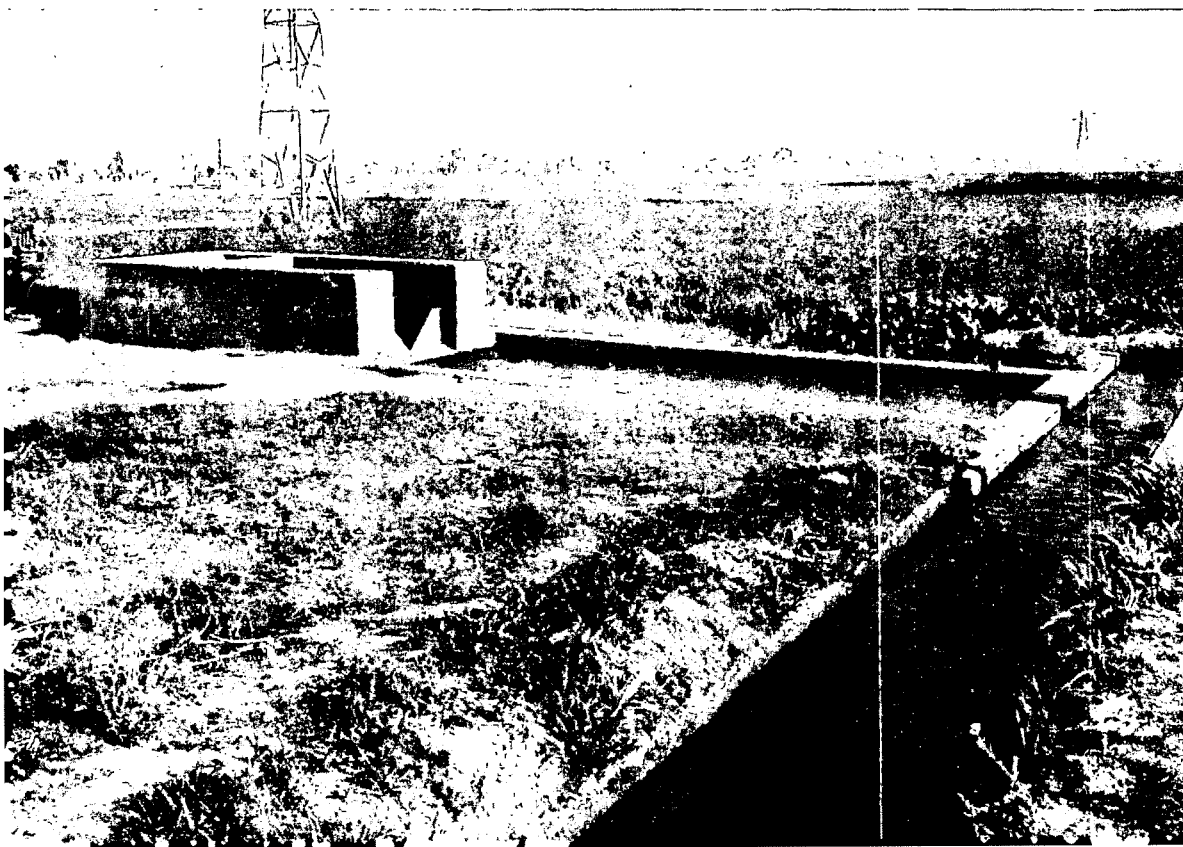
Quest for Water



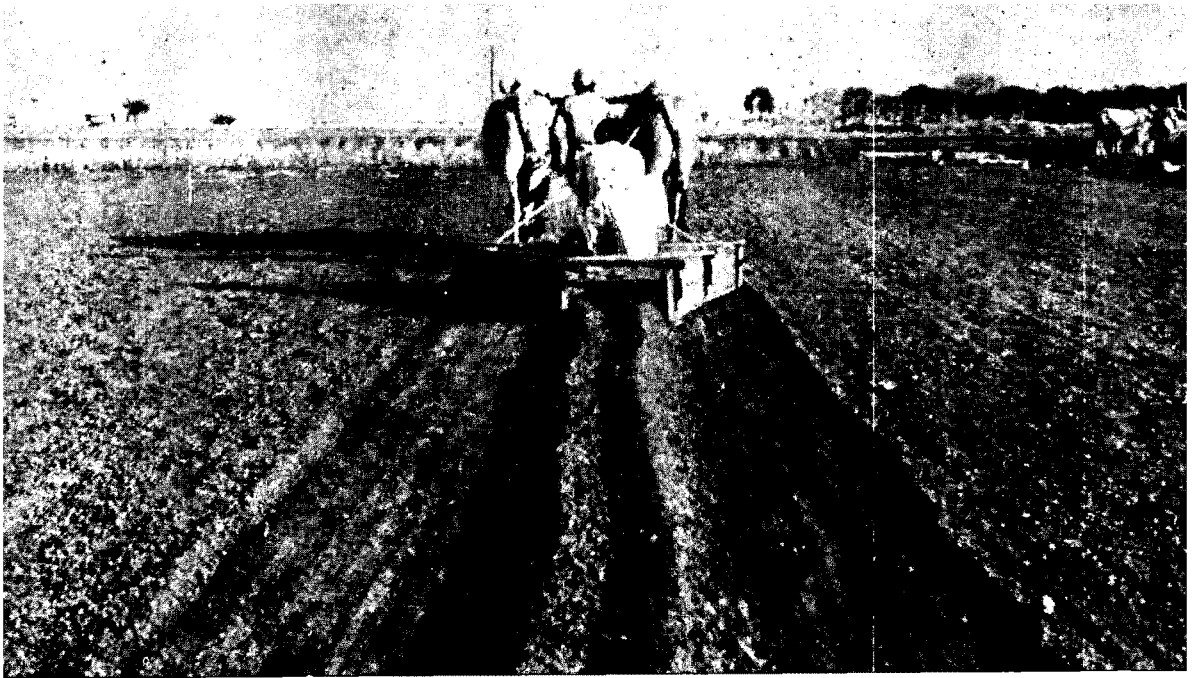




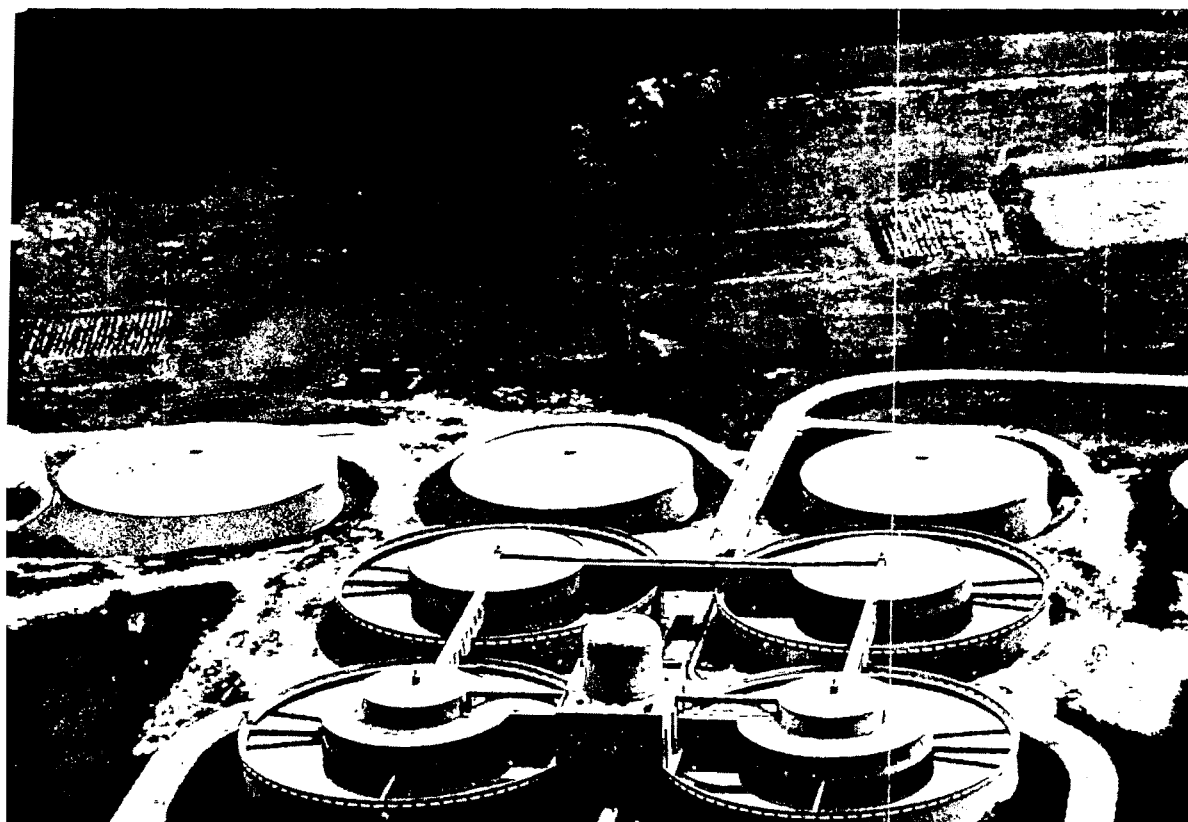
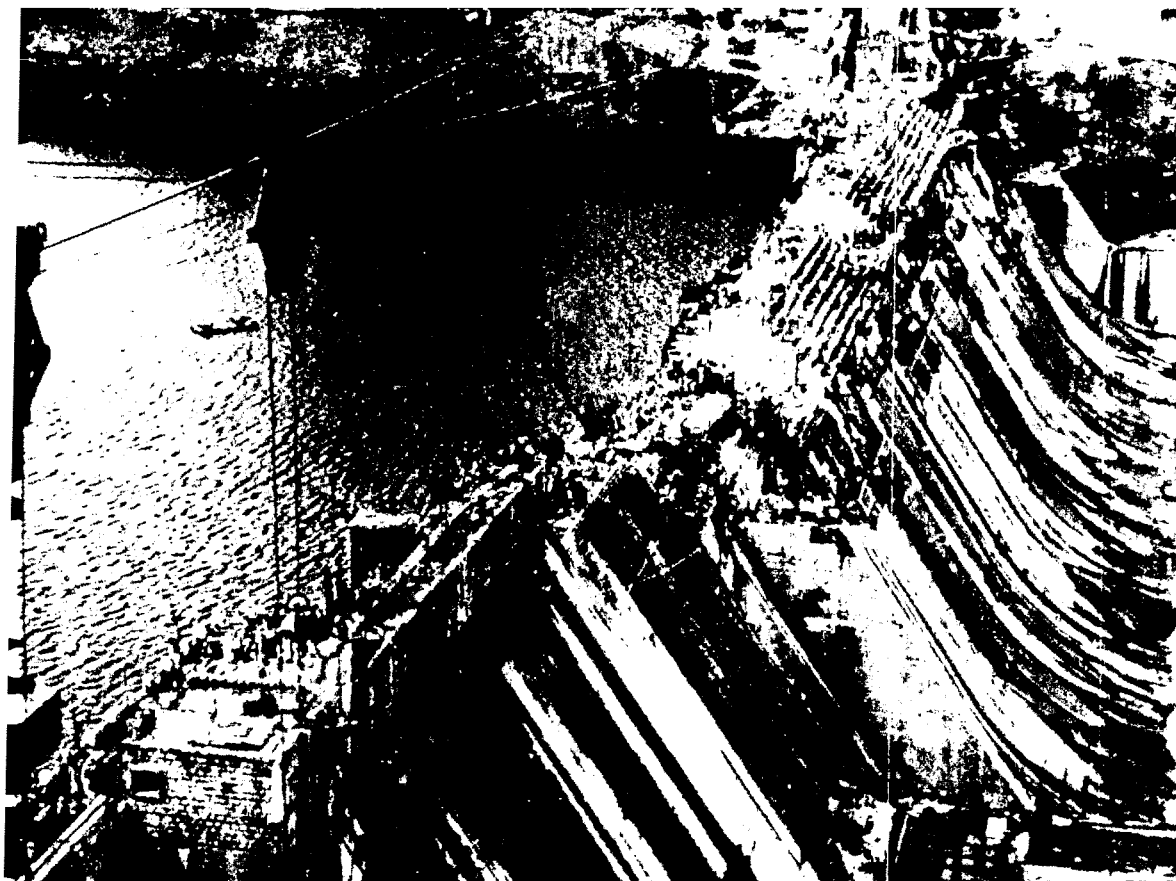


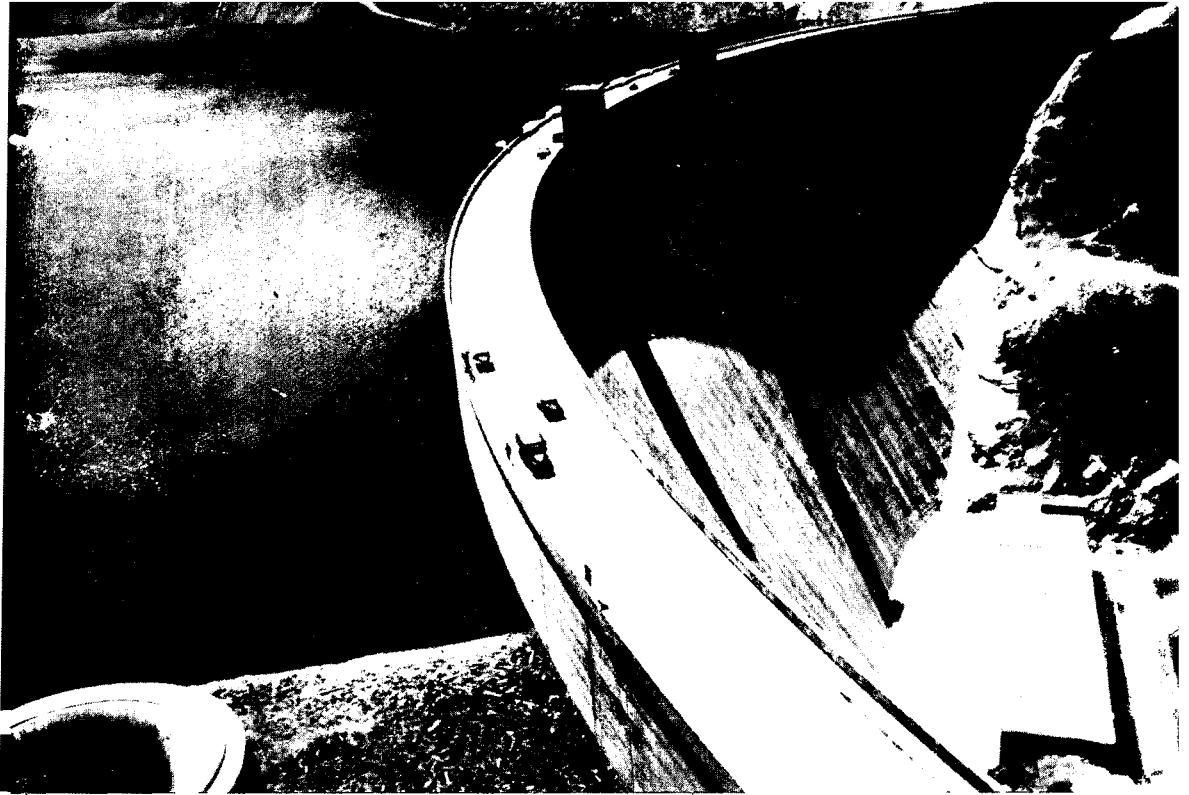


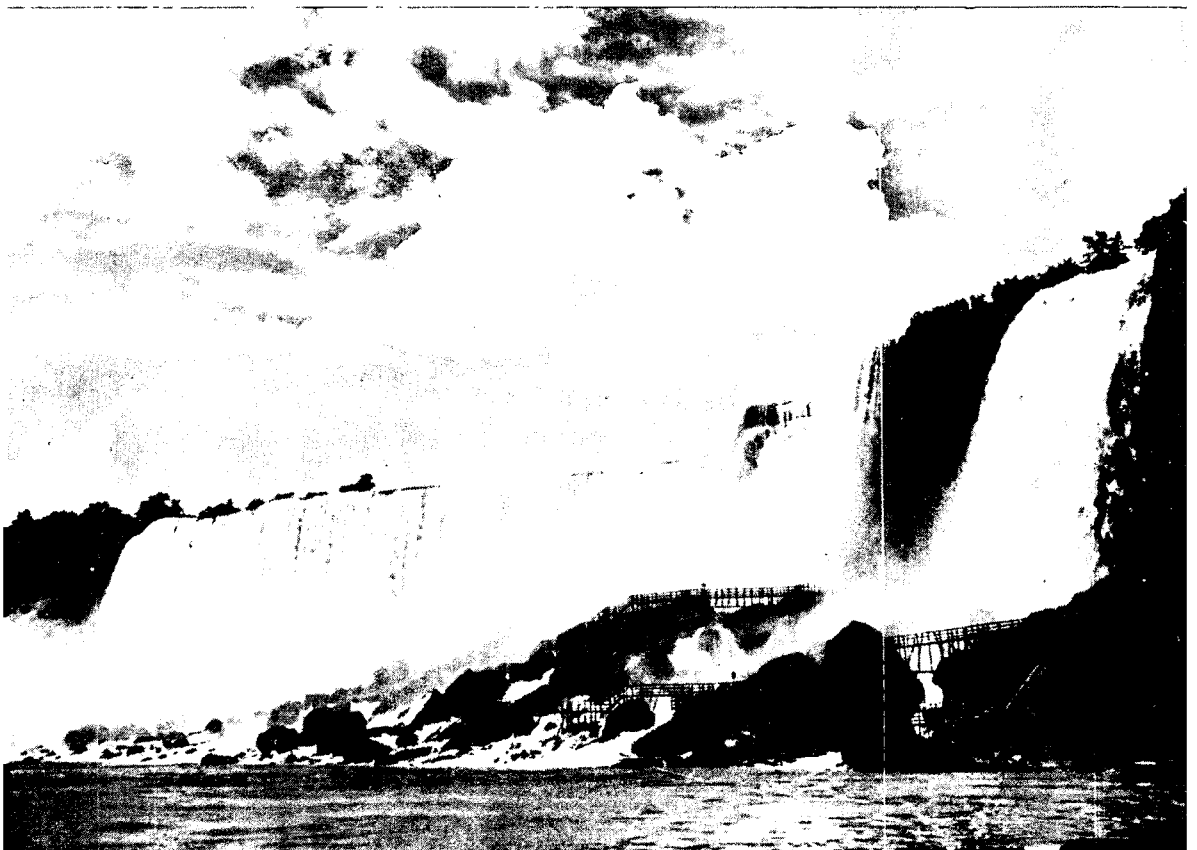
















A NEW WEAPON IN THE WAR AGAINST PESTS

CARROLL M. WILLIAMS

MAN'S EFFORTS TO CONTROL harmful insects with pesticides have encountered two intractable difficulties. The first is that the pesticides developed up to now have been too broad in their effect. They have been toxic not only to the pests at which they were aimed but also to other insects.

Moreover, by persisting in the environment—and sometimes even increasing in concentration as they are passed along the food chain—they have presented a hazard to other organisms, including man.

The second difficulty is that insects have shown a remarkable ability to develop resistance to pesticides.

Plainly the ideal approach would be to find agents that are highly specific in their effect, attacking only insects that are regarded as pests, and that remain effective because the insects cannot acquire resistance to them.

Recent findings indicate that the possibility of achieving success along these lines is much more likely than it seemed a few years ago. The central idea embodied in these findings is that a harmful species

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of insect can be attacked with its own hormones.

The Enemy Around Us

Insects, according to the latest estimates, comprise about three million species—far more than all other animal and plant species combined. The number of individual insects alive at any one time is thought to be about a billion billion. Of this vast multitude 99.9 per cent are from the human point of view either innocuous or downright helpful. A few are indispensable; one need think only of the role of bees in pollination.

The troublemakers are the other .1 per cent, amounting to about 3,000 species. They are the agricultural pests and the vectors of human and animal disease.

Those that transmit human disease are the most troublesome; they have joined with the bacteria, viruses, and protozoa in what has sometimes seemed like a grand conspiracy to exterminate man, or at least to keep him in a state of perpetual ill health.

The fact that the human species is still here is an abiding mystery. Presumably the answer lies in changes in the genetic makeup of man.

The example of sickle-cell anaemia is instructive. The presence of sickle-shaped red blood cells in a person's blood can give rise to a serious form of anaemia, but it also confers resistance to malaria. The sickle-cell trait (which does not necessarily lead to sickle-cell anaemia) is appreciably more common in Negroes than in members of other populations.

Investigations have suggested that the sickle-cell is a genetic mutation that occurred long ago in malaria regions of Africa. Apparently attrition by malaria-carrying mosquitoes provoked counter-measures deep within the genes of primitive men.

Two Generations of Pesticides

The evolution of a genetic defence, however, takes many generations and entails many deaths. It was only in comparatively recent times that man found an alternative answer by learning to combat the insects with chemistry.

He did so by inventing what can be called the first-generation pesticides: kerosene to coat the ponds, arsenate of lead to poison the pests that chew, nicotine and rotenone for the pests that suck.

Only twenty-five years ago did man devise the far more potent weapon that was the first of the second-generation pesticides. The

weapon was dichlorodiphenyltrichloroethane, or DDT.

It descended on the noxious insects like an avenging angel. On contact with it mosquitoes, flies, beetles—almost all the insects—were stricken with what might be called the “DDT’s.” They went into a tailspin, buzzed around upside down for an hour or so, and then dropped dead.

The age-old battle with the insects appeared to have been won. We had the stuff to do them in—or so we thought. A few wise men warned that we were living in a fool’s paradise and that the insects would soon become resistant to DDT, just as the bacteria had managed to develop a resistance to the challenge of sulfanilamide.

The Pests Outwit the Chemists

That is just what happened. Within a few years the mosquitoes, lice, houseflies, and other noxious insects were taking DDT in their stride. Soon they were metabolizing it, then they became addicted to it and were therefore in a position to try harder.

Fortunately the breach was plugged by the chemical industry, which had come to realize that killing insects was—in more ways than one—a formula for getting along in the world. Organic chemists began a race with the insects. In most cases it was not a very long race, because the insects soon evolved an insensitivity to whatever the chemists had produced.

The chemists, redoubling their efforts, synthesized a steady stream of second-generation pesticides. By 1966 the sales of such pesticides had risen to a level of \$500 million a year in the U.S. alone.

Coincident with the steady rise in the output of pesticides has come a growing realization that their blunderbuss toxicity can be dangerous. The problem has attracted widespread public attention since the late Rachel Carson fervently described in *The Silent Spring* some actual and potential consequences of this toxicity.

Although the attention thus aroused has resulted in a few attempts to exercise care in the application of pesticides, the problem cannot really be solved with the substances now in use.

The rapid evolution of resistance to pesticides is perhaps more critical. For example, the world’s most serious disease in terms of the number of people afflicted continues to be malaria, which is transmitted by the *Anopheles* mosquito—an insect that has become completely resistant to DDT. (Meanwhile, the protozoon that actually causes the disease is itself evolving strains resistant to antimalaria drugs.)

A second instance has been presented recently in Vietnam by an outbreak of plague, the dreaded disease that is conveyed from rat to man by fleas. In this case the fleas have become resistant to pesticides.

Other resistant insects that are agricultural pests continue to take a heavy toll of the world's dwindling food supply from the moment the seed is planted until long after the crop is harvested. Here again we are confronted by an emergency situation that the old technology can scarcely handle.

Attacking Pests with Their Own Hormones . . .

The new approach that promises a way out of these difficulties has emerged during the past decade from basic studies of insect physiology.

The prime candidate for developing third-generation pesticides is the juvenile hormone that all insects secrete at certain stages in their lives. It is one of the three internal secretions used by insects to regulate growth and metamorphosis from larva to pupa to adult.

In the living insect the juvenile hormone is synthesized by the *corpora allata*, two tiny glands in the head. The *corpora allata* are also responsible for regulating the flow of the hormone into the blood.

At certain stages the hormone must be secreted; at certain other stages it must be absent or the insect will develop abnormally.

For example, an immature larva has an absolute requirement for juvenile hormone if it is to progress through the usual larval stages. Then, in order for a mature larva to metamorphose into a sexually mature adult, *the flow of hormone must stop*. Still later, after the adult is fully formed, juvenile hormone must again be secreted.

The role of juvenile hormone in larval development has been established for several years. Recent studies at Harvard University by Lynn M. Riddiford and the Czechoslovakian biologist Karel Slama have resulted in a surprising additional finding. It is that juvenile hormone must be absent from insect eggs for the eggs to undergo normal embryonic development.

. . . So That They Never Grow Up

The periods when the hormone must be absent are the Achilles' heel of insects. If the eggs or the insects come into contact with the hormone at these times, the hormone readily enters them and provokes a lethal derangement of further development. The result is that the eggs fail to hatch or the immature insects die without reproducing.

Juvenile hormone is an insect invention that, according to present knowledge, has no effect on other forms of life. Therefore the promise is that third-generation pesticides can zero in on insects to the exclusion of other plants and animals. (Even for the insects juvenile hormone is not a toxic material in the usual sense of the word. Instead of killing, it derails the normal mechanisms of development and causes the insects to kill themselves.)

A further advantage is self-evident: insects will not find it easy to evolve a resistance or an insensitivity to their own hormone without automatically committing suicide.

The potentialities of juvenile hormone as an insecticide were recognized twelve years ago in experiments performed on the first active preparation of the hormone: a golden oil extracted with ether from male *Cecropia* moths.

Strange to say, the male *Cecropia* and the male of its close relative the *Cynthia* moth remain to this day the only insects from which one can extract the hormone. Therefore tens of thousands of the moths have been required for the experimental work with juvenile hormone; the need has been met by a small but thriving industry that rears the silkworms.

Synthesizing the Hormone

No one expected *Cecropia* moths to supply the tons of hormone that would be required for use as an insecticide. Obviously the hormone would have to be synthesized. That could not be done, however, until the hormone had been isolated from the golden oil and identified.

Within the past few months the difficult goals of isolating and identifying the hormone have at last been attained by a team of workers headed by Herbert Roller of the University of Wisconsin. The juvenile hormone has the empirical formula $C_{18}H_{30}O_2$, corresponding to a molecular weight of 284. It proves to be the methyl ester of the epoxide of a previously unknown fatty-acid derivative.

The apparent simplicity of the molecule is deceptive. It has two double bonds and an oxirane ring, and it can exist in sixteen different molecular configurations. Only one of these can be the authentic hormone. With two ethyl groups (CH_2CH_3) attached to carbons No. 7 and 11, the synthesis of the hormone from any known terpenoid is impossible.

The pure hormone is extraordinarily active. Tests the Wisconsin investigators have carried out with mealworms suggest that one gram

of the hormone would result in the death of about a billion of these insects.

A few years before Roller and his colleagues worked out the structure of the authentic hormone, investigators at several laboratories had synthesized a number of substances with impressive juvenile hormone activity.

One Thousand Times More Active

The most potent of the materials appears to be a crude mixture that John H. Law, now at the University of Chicago, prepared by a simple one-step process in which hydrogen chloride gas was bubbled through an alcoholic solution of farnesenic acid. Without any purification this mixture was 1,000 times more active than crude *Cecropia* oil and fully effective in killing all kinds of insects.

One of the six active components of Law's mixture has recently been identified and synthesized by a group of workers headed by M. Romanuk of the Czechoslovak Academy of Sciences. Romanuk and his associates estimate that from 10 to 100 grams of the material would clear all the insects from $2\frac{1}{2}$ acres. Law's original mixture is, of course, even more potent, and so there is much interest in its other five components.

Another interesting development that preceded the isolation and identification of true juvenile hormone involved a team of investigators under W. S. Bowers of the U.S. Department of Agriculture's laboratory at Beltsville, Maryland.

Bowers and his colleagues prepared an analogue of juvenile hormone that differed by only two carbon atoms from the authentic *Cecropia* hormone (whose structure was then, of course, unknown).

In terms of the dosage required it appears that the Beltsville compound is about 2 per cent as active as Law's mixture and about .02 per cent as active as the pure *Cecropia* hormone.

Search for Selective Pesticides

All the materials I have mentioned are selective in the sense of killing only insects. They leave unsolved, however, the problem of discriminating between the .1 per cent of insects that qualify as pests and the 99.9 per cent that are helpful or innocuous. Therefore any reckless use of the materials on a large scale could constitute an ecological disaster of the first rank.

The real need is for third-generation pesticides that are tailor-made

to attack only certain predetermined pests. Can such pesticides be devised?

Recent work that Slama and I have carried out at Harvard suggests that this objective is by no means unattainable. The possibility arose rather fortuitously after Slama arrived from Czechoslovakia, bringing with him some specimens of the European bug *Pyrrhocoris apterus*—a species that had been reared in his laboratory in Prague for ten years.

To our considerable mystification the bugs invariably died without reaching sexual maturity when we attempted to rear them at Harvard. Instead of metamorphosing into normal adults they continued to grow as larvae or molted into adult-like forms retaining many larval characteristics. It was evident that the bugs had access to some unknown source of juvenile hormone.

Eventually we traced the source to the paper towelling that had been placed in the rearing jars. Then we discovered that almost any paper of American origin had the same effect. Paper of European or Japanese manufacture had no effect on the bugs.

The Paper Factor

On further investigation we found that the juvenile hormone activity originated in the balsam fir, which is the principal source of pulp for paper in Canada and the northern U.S. The tree synthesizes what we named the "paper factor," and this substance accompanies the pulp all the way to the printed page.

Thanks again to Bowers and his associates at Beltsville, the active material of the paper factor has been isolated and characterized. It proves to be the methyl ester of a certain unsaturated fatty-acid derivative.

Here, then, is an extractable juvenile hormone analogue with selective action against only one kind of insects. As it happens, the family Pyrrhocoridae includes some of the most destructive pests of the cotton plant. Why the balsam fir should have evolved a substance against only one family of insects is unexplained.

The most intriguing possibility is that the paper factor is a biochemical memento of the juvenile hormone of a former natural enemy of the tree—a pyrrhocorid predator that, for obvious reasons, is either extinct or has learned to avoid the balsam fir.

In any event, the fact that the tree synthesizes the substance argues strongly that the juvenile hormone of other species of insects can be mimicked, and perhaps has been by trees or plants on which the insects preyed. Evidently during the 250 million years of insect evo-

lution the detailed chemistry of juvenile hormone has evolved and diversified.

Hope for the Future

The process would of necessity have gone hand in hand with a returning of the hormonal receptor mechanisms in the cells and tissues of the insect, so that the use as pesticides of any analogues that are discovered seems certain to be effective.

The evergreen trees are an ancient lot. They were here before the insects; they are pollinated by the wind and thus, unlike many other plants, do not depend on the insects for anything. The paper factor is only one of thousands of terpenoid materials these trees synthesize for no apparent reason. What about the rest?

It seems altogether likely that many of these materials will also turn out to be analogues of the juvenile hormones of specific insect pests. Obviously this is the place to look for a whole battery of third-generation pesticides. Then man may be able to emulate the evergreen trees in their incredibly sophisticated self-defence against the insects.

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WHEN THE NEGROES IN VIETNAM COME HOME

WHITNEY M. YOUNG, JR.

WHEN I RETURNED FROM VISITING the American Negro GIs in Vietnam last July, I was surprised to learn that my trip had caused consternation among some of the press and public who maintained, among other things, that the place to be addressing myself to the Negro struggle for equality was at home, not in some far-flung, war-torn land.

It is true that the Negro victory for equal opportunity and the full deserts of democracy must and will be won on American soil. But it is equally true that what has happened—and is happening—to the Negro and white soldier in Vietnam will have a profound and far-reaching effect on the whole race situation in America during the next decade.

For in this war there is a degree of integration among black and white Americans far exceeding that of any other war in our history as well as any other time or place in our domestic life. The impact of this experience on both white and Negro servicemen in Vietnam

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has formidable ramifications for the future of all Americans.

The armed forces were not officially desegregated until 1948. Negro troops fought as segregated units all during the Second World War and partway through the Korean war. During the 1950's desegregation proceeded only fitfully.

The Crumbling Myths

The Vietnam war thus represents the first military occasion in the history of the United States when white and Negro troops have trained and fought shoulder to shoulder, responsible for the same duties, answerable for the same errors. Inevitably, the Mainland myths of the God-given superiority of the white man and of the Negro's natural inadequacy are beginning to crumble.

When asked what was the most significant impression he had from this new integrated condition, one Negro GI summed up the situation: "To find out for the first time that all white people are not geniuses and all Negroes are not idiots." At the same time, the white soldier cannot help observing and coming to respect the courage, intelligence, and effectiveness of his Negro fellows.

One white American general in Saigon told me: "My people in the Army were made to integrate in the early 1950's long before the rest of the country. But we are sure glad it happened. Today, here in Vietnam, there is absolutely no difference between the calibre of white and Negro soldiers. The Negroes are good. In fact, I think they try just a little harder. They won't let that white guy in the foxhole with them do better than they."

Having been given the opportunity—not readily available in civilian life—to demonstrate their skills, ability for leadership, and precision performance in combat and in man-to-man contact, the Negro in Vietnam has earned the deep-down respect of the white soldiers, a respect that often takes the form of total dependence. In the guerrilla warfare of Vietnam discriminatory attitudes can command a high price, even the price of life itself.

"In a tight situation over here the race thing just doesn't exist," said Negro Sergeant Otis Curry. "Sure you find guys with chips on their shoulders. But when this happens, they are ostracized by their own kind. And, man, you can't make it over here alone."

No One Has Time for Race

Captain Lucius Reeves of Miami, a college-educated Negro with

two white Southern sergeants assigned to his staff, told me: "When you're out in these hills, no one has time for race. Everybody that has U.S. on his sleeve is a buddy. I've seen white guys hugging and kissing their Negro platoon sergeant after he's brought them through a fire fight. And I think a lot of white guys are leaving here with a completely different attitude."

This viewpoint was confirmed by a number of white soldiers from the South who told me they would never again be victims of the stupefying myths on which they were brought up. Many of them advanced the theory that their own sense of insecurity had been the major force that helped perpetuate the degradation of Negro status.

It is, of course, possible to enforce integration—or any other moral ethic—to a much greater degree in the armed forces than in civilian life. One of the first lessons a young man learns on his first day in uniform is that it is not the function of the private—or the general—to question military policy. His job—his only job—is to do his duty to the best of his ability.

If part of this duty is functioning in an integrated situation, then that, patriotically speaking, is that. The President of the United States himself cannot impose integration in civilian life to this degree.

When Whites Are a Minority

But this change has not been achieved by military directive alone. The young Negroes fighting today in Vietnam are the war babies of the civil-rights movement, and the desegregation of the American armed forces is one of its major gains. If these men have yet to experience the true taste of freedom in their own land, they are able to see the inevitability of true equality which for their forefathers was barely a mirage.

Another factor contributing to integration in Vietnam is the colour of the community itself, which is essentially non-white. The Vietnamese for generations have suffered exploitation by white people, principally the French.

One of the favourite propaganda exercises of the Vietcong is to drop leaflets explaining the race issue to the American Negro. These thoughtfully remind the Negro troops of their own period of slavery and ask for what purposes are they in Vietnam helping the whites oppress a coloured people.

But this is a war in which white American soldiers find themselves in a non-white country. The community and the situation are thus very different from World War II in Europe, when the white

soldier often made it his business to discredit the Negro in the minds of the local citizens, who were white too.

In Vietnam, because victory—and often survival itself—depends on the friendship of the Vietnamese people and on the good will and military prowess of the Negro, there are few attempts to educate indigenous groups about racial differences and white supremacy. The whites are fighting in a situation where, for the first time in their lives, they are the minority.

Friend or Enemy?

In Vietnam, it's not always possible to tell who are your friends and who are your enemies. And so the American soldier has to put a great deal of effort into trying to understand the Vietnamese people and to develop warm relationships with all associates if for no other reason than self-defence.

By necessity, then, the white American soldier has developed a sincere sympathy for people who never in their lifetime have experienced peace, independence, and freedom from exploitation, and who are different in culture, religion, and colour. This is possibly another factor in his change of attitude towards the American Negro serving beside him.

As a result of these combined influences, the Negro has clearly developed sophistication, confidence in his own ability, and a sense of well-being in an integrated climate. He is a man accustomed to discharging duty and exercising responsibility. He is used to commanding the respect he has justly earned.

And these are the spoils of battle he will bring with him when he returns to America. This time the Negro veteran will return to his native land shorn of his old sense of stunted purpose. This fact poses some deep questions.

What the Negro Will Expect

The first question is, naturally: what can the discharged Negro GI expect when he returns? In talking with many of the Negro soldiers, I found this thought to be foremost. Many expressed bitter concern about the condition of their parents, wives, and children in semi-segregated America while they were risking their lives in the service of the country.

Sergeant Andrew May, a twenty-nine-year-old Negro squad leader from Rocky Mount, North Carolina, who has been more than

once decorated for bravery, said: "It does make you feel funny sometimes, fighting here for things we're denied at home. But you just got to shake your head and hope the situation will change."

While the Negro servicemen expressed rapt interest in the progress and development in the civil-rights movement, it was evident from their responses to news of change and reform that a wide credibility gap still exists.

Many felt the changes were merely token compliance with the law and were motivated less by desire for racial justice than by desire for defence contracts. Many expressed bewilderment at the "backlash" and the defeat of the civil-rights bill on the excuse of the riots and rise of Black Power.

One soldier summed up the reaction most when he said:

"Doesn't America understand that this so-called tide of violence is just a handful of people, a very small minority of the population? That for every Negro who throws a rock there are thousands in Vietnam, wading around in the mud, fighting their guts out in the jungles, risking their lives twenty-four hours a day—and getting killed upholding the honour of a country in which they don't even have their lawful privileges? If they can't pass the civil-rights bill because it's the just and right thing to do, they should do it in recognition of what the Negro guys have done and are doing in Vietnam. That's reason enough."

No Return to the Status Quo

As I listened to countless Negro soldiers, one thing became obvious. After risking his life in the service of his country and, in the process, having experienced the most advanced form of integration in America's history, the Negro veteran is not prepared to return to the status quo, to regress culturally and socially once he sets foot on American soil.

He is grimly determined—by whatever method necessary—to live in an America where his rights are fully guaranteed. In his war experience he has acquired new confidence and new skills, among them the skills of guerrilla warfare, of killing, of subversion, and the gamut of tricks of military combat.

These returning veterans may face, as I faced when I returned from World War II, an America that may choose to ignore their sacrifices, new skills, and proven ability; a society that continues to subject them and their families to discrimination. If that be the case they will be disillusioned and hostile—and full of fresh memories of

an environment where life was cheap and where the order of the day was kill or be killed.

It would then be realistic to expect such experts of mines and booby traps and all other forms of destruction to find good reason why they should use these skills and risk their lives against the enemy of personal injustice as they did against the enemy of Communist aggression.

The Negro men fighting in Vietnam are not representative of the racial extremists currently active in the ghetto. "I sympathize with them," said one Negro private. "I'm trying to accomplish the same thing, but I'm just doing it another way, that's all."

"The ghettos are a sore spot on the country, a sore spot on our race," said Sergeant Otis Curry, an old-time Negro soldier. "I come from Detroit and I was there during a riot. Stores were busted up. Negroes were killed. What's it prove?"

However, if they return to find the conditions they left unchanged, these Negro veterans might become an interested audience for the preachers of violence—and one capable of being organized into a major national threat.

A Great Opportunity

In contrast to this threat, the effects of the Vietnam war on the American Negro offer a great opportunity to this country if they are understood and accepted in time. The veterans are also capable of becoming responsible and productive citizens, if given the opportunity in the industrial and civic community.

Among the hopes and plans that the GIs spoke of to me, the desire for further education had high priority. Ironically, the value of education is one of the big lessons they learn from their war experience, for the simple reason that in many cases an inferior education has arrested their rank-and-file advance in the armed forces.

The sad fact is that what has limited their advance in the Army also handicaps them in trying to better their education in civilian life. The grades they made in high school under a segregated and spurious educational system are the criterion too often used by insensitive schools and universities as the basis for acceptance. For men who have graduated *cum laude* in the life-and-death examination of self-discipline, professional skill, and, above all, hope, ambition, and new maturity, this criterion is no longer valid.

It would be a tragic mistake if these capable and potentially outstanding young men were judged simply on the basis of their previous high-school records in their aspirations to higher or technical

education.

The Cream of the Crop

There has been bitter comment and controversy about the high proportion of Negroes serving in Vietnam. As of October first last year, there were 39,125 enlisted Negroes. This is 11 per cent of the total military force. The Negro death toll is reported to be proportionately even higher. Of the 4,557 Americans killed in Vietnam during the first eleven months of 1966, 16.3 per cent were Negroes. A more recent Defence Department study shows Negroes accounting for nearly 18 per cent of combat deaths.

The facts, however, do not bear out the charges of gross discrimination. First, close to 70 per cent of the Negro men who are drafted or who volunteer for the armed forces are rejected because of poor educational background or poor health resulting from discriminatory environments.

The 30 per cent who are accepted are not society's rejects, not the functional illiterates, the addicts, or the chronically unemployed—but the "cream of the crop" of the Negro community. These are the men who represent the potential forces of leadership in the war in Vietnam and in the battle cry for freedom at home.

The Negro percentage is higher mainly because a larger number of Negroes voluntarily enlist—and re-enlist—than do whites. The first enlistment is less representative of disproportionate patriotism than it is a reflection on our country.

The second enlistment is not, as commonly believed, related simply to the opportunity to make more money, but because the Army offers more opportunity for advancement, for learning skills and using natural talents, for dignity, for self-respect and a sense of worth than does the present condition of civilian life. For the majority of these capable young men, the Army is their university.

The reason for the high rate of Negro combat deaths lies in the simple fact that higher proportion of Negroes volunteer for hazardous duty. They do so not for the money—which doesn't begin to justify the risk—but more from a desire to prove to themselves and to their colleagues that they are men capable of as much skill, courage, and sacrifice as any man alive.

People, Not Politics

I heard relatively little political comment about the war among

the troops serving in Vietnam. This stems at least in part from the particular nature of the war itself. In the Second World War and to a lesser degree in the Korean war, American self-interest and self-defence were the overriding concern.

In this war, the prevailing attitude among American troops seems to be a genuine sympathy for the Vietnamese—with their suffering. Americans—both Negro and white—have developed warm personal relationships with the Vietnamese, particularly with the children. It is a pretty plastic-hearted soldier who does not feel pity for the kids bathing in the muddy water, sleeping in rat-infested quarters, and often existing on a meagre diet of rice. It is images like these that command, for the American soldier, the major part of moral fervour.

A large number of American troops—both Negro and white—devote their precious off-duty hours to teaching and trying to help the villagers. This close-up view of real people suffering great distress tends to obscure the political controversy that we at home read so much about in the press.

The Economic Assistance Programme

One of the most rewarding experiences of my trip was a visit to the U.S. Agency for International Development headquarters in Saigon. With \$525 million—or one quarter of the total AID budget for fiscal 1967—being spent in Vietnam, we are really fighting a socio-economic and educational war at the same time we're fighting a military one.

In order to carry out their work in the villages, AID personnel have to rely heavily on the cooperation and protection of the military. The teamwork among the two groups is outstanding.

It was interesting to meet a young man working at AID who had been active in the anti-war demonstrations at Berkeley. There he was in Vietnam, beard and all, involved in the heart of this vital action.

His attitude towards the war was unchanged—he was still adamantly opposed to it—but his approach had changed. His views had been modified by seeing what seemed to be the pathetic alternatives for these people in the absence of American social and economic aid.

The Negro and white Americans in Vietnam are thus for the first time in their history united in spirit as well as in combat. Regardless of the moral issues of political differences about this war, this shared experience is producing a vital effect on Negro-white relations.

The effect is particularly significant among whites from the Deep South. Before I arrived in Vietnam, I was apprehensive about getting the chance to talk to Negro GIs without the whites present. At the same time, I wanted to be careful not to set up a segregated situation.

Reconstructed Southerners

But to my surprise, I quickly learned that many of the white soldiers were as eager as the Negroes to hear the latest news on the racial situation at home, and many responded to information about the slow pace of progress with a sense of disgust and disappointment. Many of the white servicemen expressed more sympathy with the riots and the rise of Black Power than some of the Negroes.

It was an unusual experience to hear white men criticize a society which permitted them to grow up with superstitious notions about the Negro. These men will represent a strong and positive force for the kind of legislative and local action that will be needed when they return to their own communities.

In Vietnam we stayed at the home of Colonel Sam Wilson, who at the time was Ambassador Lodge's mission coordinator (a unique job which made him a member of both the Army and the State Department). He was a veteran of the segregated forces of World War II and a Southerner. He told us that, as a result of his experiences in commanding integrated troops, his misconceptions on race and segregationist attitudes had changed completely.

This is illustrative of the little-known truth that the best and least prejudiced liberals are reconstructed Southerners. I think one of the reasons for this is that while Southern prejudice is almost generic, it has a certain counterbalance in the fact that white Southerners have the opportunity to see Negroes in positions of authority—in education, such as college presidents, in private enterprise, such as bank presidents, insurance executives, and so forth—that rarely exist in the North.

General W. C. Westmoreland, commander of all U.S. Vietnam forces, native of South Carolina, candidly discussed his own personal feeling about the Negro troops. As he discovered from firsthand experience that the Negro soldier had a highly developed intelligence, talent for leadership, and a heightened awareness and self-control in tight situations, his attitudes growing out of his past environment began to fall away.

The most eloquent expression of this approach is not in words, but in his command. The one place where I found a commendable number of Negro officers in high places was on the General's staff.

THE NEGROES IN VIETNAM

Among nineteen Negro officers, there were four lieutenant colonels, seven majors, and eight captains.

The Navy Still Lags

Regrettably, this situation was not evident in other branches of the services. The dearth of Negro commissioned officers and the failure to upgrade qualified enlisted men and non-commissioned officers were most disturbing. Several white commanding officers openly admitted they had no idea how many Negroes were in their units. Several regimental officers had no idea how many Negro officers were on their staffs.

The injustice of this situation was also confirmed by the number of Negroes who complained that, even with outstanding records of achievement in combat, they were still unable to get promotions.

Of all the services, the Navy in terms of numbers still lags behind in spite of a new commitment to integration, and Negro officers are few. On an aircraft carrier with a crew of 3,000, and 240 officers, the single ranking Negro officer was one junior-grade lieutenant. One of the reasons for this is, of course, historical, since the Navy was the last of the services to break down completely its barrier against Negro officers.

It is my guess that the Navy is not particularly proud of this fact, if my own experience is any indication. During a night we spent on the U.S.S. *Oriskany* aircraft carrier, the Navy brass made a touching and amusing attempt to testify to the fact of integration.

A dinner had been arranged with the commander of the ship and the officers. All the officers present were pilots. A lower-ranking officer, who also happened to be Negro, was nonetheless invited on this occasion—his purpose being, one presumes, to decorate the dining room with the blooms of integration. The only other brown faces present besides ours were the Filipino waiters and one Negro who appeared to have command of the water glasses.

Death-Defying Teamwork

While one smiles at such obvious subterfuge, there is one aspect of it that demands serious reflection—and that is the burden placed on one Negro to integrate a whole carrier crew of officers.

Conversely, one of the most memorable experiences of the trip also occurred aboard the *Oriskany*. At four o'clock in the morning, I stood on the top deck of the carrier and thrilled to the sight of planes

being shot off the carrier at intervals of one per minute. At no time in my life I remember witnessing such an exhibition of whirlwind, death-defying teamwork.

In the pre-dawn light, I saw several hundred men—both black and white—dashing through roaring jet exhausts, around the whirling propeller blades, lowering wings, checking instruments, performing a multitude of skilled tasks with the speed and precision of a giant machine. If one man failed to perform his job, and to perform it to the split second, it might mean catastrophe for the whole operation. The efficiency was dazzling.

If this same degree of multiracial teamwork could be translated into the domestic life of the nation, how dazzling might be the efficiency, the produce, and the human happiness in America! It is our tragedy and our shame that thus far, in our history, the enormous benefits of brotherhood can be extracted from society only under life-and-death circumstances.

The adjustment of the returning veteran to civilian life in America is not an easy one. This is true even of white servicemen. We have only to look at the case of Congressional Medal of Honour winner, Private Robert O'Malley, a high-school dropout who, after having displayed great heroism in the service of his country, returned to find that he still held the status of a dropout (although a celebrity) and before the story broke was unable to get a job in the prosperous society for which he risked his life. For the Negro veteran the difficulty is many times greater.

Medals Down to His Knees

"We've got genuine Negro heroes over here," one Negro captain told me. "But you take a kid from Jackson, Mississippi, and he goes home with medals hanging down to his knees. Now where is he a hero? He is a hero down in the same part of town he left when he came over here—not uptown."

The role of our Negro fighting men is perhaps best typified by Specialist 6 Lawrence Joel, who recently received the nation's highest military honour, the Medal of Honour, at a White House ceremony. During an attack on his company's position, almost everyone in the lead squad was killed or wounded in the attack, and Specialist Joel, a medic, treated the wounded men while still under fire.

After being wounded twice, he still dragged himself across the bloody battlefield to treat more men. Even after his supplies ran out, he continued to help his comrades, saving one man's life by placing a

plastic bag over a chest wound to congeal the blood.

Can we ask so much from these men without doing something about the discrimination which limits their opportunities in civilian life? Is our nation so morally backward as to ask for such sacrifices from people not allowed to participate fully in all aspects of life?

My purpose in going to Vietnam was not to make any moral judgment, or any military or political analysis of the war. No sane man would champion the horrendous phenomenon of war with its unspeakable atrocities, terrible human suffering, and tragic loss of life.

I hoped, by my presence and by my words, to voice the concern of the Negro community for the men fighting and dying in Vietnam and to let Negroes know the fight was continuing at home to assure them equality of opportunity upon their return.

Another reason for the trip was to gather information about the kind of skills acquired by Negro GIs, the nature of their civilian ambitions, and how they might best be helped to readjust and contribute to civilian life.

The trip was conceived, sponsored, and paid for by the National Urban League. The U.S. Government provided the necessary means of travel and transportation, security escort, and access to facilities and personnel.

Off-Duty, Non-Integrated

On uninhibited and unannounced visits to the enlisted men's mess halls, living quarters, combat areas, restaurants, bars, and night clubs, I talked to Negroes in all branches of the services in the hills, in the air, at airports, in their living compounds, at their duty stations, and in the hospitals.

Despite the friendships forged in combat, I noticed that whites and Negroes usually split up during their off-duty hours. This is most evident in the bars and clubs, which are self-segregated.

As one Negro sergeant put it, "We remember too well the bars in the States that are technically 'open'—but you didn't go to them unless you enjoyed being made to feel uncomfortable. Over here we don't see any point in running this risk. Time for recreation is too precious. When we're off-duty we don't want to use the time fighting the race issue."

The exceptions to this rule are the places frequented by members of the Green Berets, the toughest and most respected fighting unit in the Army. It's an exclusive combat unit and one of the arms of the famed Special Forces. The Green Berets are assigned the most

hazardous combat duties, where survival itself depends on perfect teamwork.

The common experiences of these men seem to be a greater fraternal bond than race, and white and Negro members usually stick together off-duty as well as on. Master Sergeant Frederick Robinson from Memphis, a Negro who heads one of the outfits, told me: "We don't keep a man who's prejudiced in the Green Berets. We're a close-knit fighting team and we don't stand for any nonsense."

Enrichment or Protest

The Negro GI is not prepared to return to the same old discriminatory conditions, the second-class citizenship, and instant oblivion which greeted the Negro veteran of former wars. He is prepared to use his new skills and confidence in the enrichment of American life—or in active protest if he finds this opportunity denied to him. With the racial and political unrest currently besetting the country, these Vietnam veterans are a force the nation can ill afford to have embittered.

It is the job of public and private organizations of business and education and government to see that this does not happen: by industry, in an enlightened move to hire and train those Negro veterans who are ready to enter the business world; by the schools to accept the promise of those who wish to further their education; by the builders and the housing industry in general to provide decent living quarters without the usual morass of red tape.

The Mechanics of Equality

The National Urban League has taken the lead in creating a programme of action to help the Negro veteran in his re-entry into the mainstream of civilian life. During my talks with President Johnson on my return from Vietnam, I was assured that he would support the programme without reservation, and he promised the cooperation of the Defence Department and Veterans Administration.

He also expressed an avid interest in the experience of the Negro servicemen and pledged immediate investigation into the problem of Negro officers, and action on the upgrading of competent enlisted Negro GIs. Interest has been shown also by many corporations and labour unions and educational institutions.

The Veterans Affairs Programme of the National Urban League is designed to inform returning veterans on the benefits and services

available to them, the housing, educational, and social-service facilities, and the transfer of military skills into civilian employment. In short, we hope to establish a citizens' Office of Veterans Affairs which would work in cooperation with government, labour, industry, and educational institutions through the Urban League's 81 local affiliates.

The Will to Freedom

Approximately 15,000 Negro servicemen are being returned to civilian life annually—and this figure will rise if the Vietnam forces continue to escalate. Judging from the commissioned and non-commissioned officer ratios, as many as 4,500 a year will be discharged with skills immediately transferable to civilian use. Those who do not have immediately transferable skills can be directed to further training or education.

America and her institutions and communities need and must capitalize on this vast reservoir of skills, maturity, and proven patriotism. Failure to grasp this opportunity could lead to disillusionment and disorder on a scale far greater than we have ever known.

"There is no doubt in my mind that when I get home I'm going to have my freedom," said Private Tyrone Howell, a Negro combat-medic veteran. "You know when somebody tells you over and over again you are inadequate, eventually you start to believe it. Always this question of 'heritage.' Heritage, man, that's just a breeze that goes by. I'm going to have my freedom, don't you worry. Let's just put it this way: I've paid my dues."

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HOW TO MAKE A NATIONAL MARKET

WALT W. ROSTOW

IF YOU LOOK BACK YOU CAN SEE that individual nations of the contemporary world entered the process of industrialization at different points in time. What I would call the "take-off" into sustained growth occurred first in Great Britain, beginning at the close of the eighteenth century with the revolution in cotton textile manufacture, backed by Watt's efficient steam engine.

Then, between 1830 and 1850, the United States and Western Europe entered the new industrial revolution in a serious and sustained way. After a pause, Sweden, Japan, Russia, and Canada were seized with the industrialization process in the period, roughly, between 1870 and 1914.

At the beginning of the First World War, the whole northern half of the planet with the exception of parts of Eastern Europe and China—from Great Britain around through Japan to North America—had begun systematically to absorb and apply modern science and technology.

One way to describe the world in which we now live is to say that the whole southern half of the planet is moving into industrialization. Its people are bringing to bear on their societies a different range of technology than that which was available to the pre-1914 industrializers of the North; but some of the problems they face are recognizable from earlier experiences.

The new developing nations are at quite different points in the application of modern science and technology to their lives. Some will pass through a period where the primary tasks are education, the building of administrative skills, the laying out of transport, the exploitation of sources of power, and so on.

But countries with perhaps 70 per cent of the population of the developing world have already had a considerable experience in

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economic development. As in Africa, many of them have laid out their transport systems, acquired administrative experience, built educational institutions, and mastered many of the most fundamental techniques of industrial manufacture. From their airports to their ultra-modern hotels, they present a picture of advanced modernization.

In this phase of industrialization, some have proceeded in an unbalanced way. It is wholly natural, given the nature of economic development and the historic experience of others, that they find themselves now facing a series of structural distortions.

A Typical Developing Nation

What, then, does a typical nation among the more advanced of the developing economies look like?

First, there is an industrial capacity, usually developed to substitute for the import of certain kinds of consumers' goods. The easiest way to begin industrialization has been to set high tariffs or otherwise prevent the import of automobiles, radios, and other luxury goods which the upper middle class can afford to buy, and then to start producing them at home. This both saves foreign exchange and permits industrialization to begin, and it is not difficult to market the products to the urban middle class.

The second characteristic of the developing countries is that, leaving textiles aside, the market for these manufactured goods is small; and there is a tendency for industrialization to slow down once the substitution for imports has mainly taken place. If the initial market for television sets is 100,000 units and a high tariff is laid down, television output in the protected market can expand rapidly up to 100,000. But then it will only expand at the rate at which those affluent enough to buy a television set increase—a much slower rate. Under these circumstances, some industrial plants may be idle or inefficiently used, and industrial profits may not be turned back into industrial expansion.

A third characteristic of such countries is that, although agricultural development is taking place, the gap between rural and urban life is widening. In their first phase they have concentrated on the development of major cities which have within them the services of modern urban life. But neither sufficient capital nor sufficient human and technical talent has been invested in the countryside.

As a result of this imbalance, a number of the developing nations have become more dependent on the import of food for their cities;

they have not developed the possibilities of agriculture for the supply of industrial raw materials or exports; and the agricultural population is not an effective or practical market for industrial products.

Finally, as a result of this imbalance, men and women move from the countryside to the cities, where often they remain unemployed and impose a burden on government budgets for housing and education.

The Internal Gap

Looked at in this way, the central problem of development is not the gap between rich nations and poor nations: it is the gap between the rich and poor parts of the developing nations themselves. The prices paid in the countryside for manufactured goods may be too high, while the prices paid by the cities for the output of rural areas and the total resources allocated from the cities for rural development may be too low.

My central proposition is that the task of development in many parts of the world over the next decade is to break down these structural distortions, to produce a self-reinforcing agricultural and industrial expansion, and to create truly national markets.

In concrete terms the problem can be visualized from a recent survey made in one such developing nation. It was found that 90 per cent of the durable and non-durable goods sold to consumers went to the 39 per cent of the population which lived in towns of over 10,000 people, whereas the 61 per cent of the population living in rural areas bought only 10 per cent of such goods.

We have seen this same problem in substantial parts of the American South. It is only since the 1930's that the Tennessee Valley Authority area (parts of seven Southern states in a 40,901-square-mile region along the Tennessee River) has been brought fully into the national economy of the United States — and by exactly the kind of self-reinforcing industrial and agricultural process that I will try to analyse.

Now, how will they do it? How will the developing nations make a national market, starting from the kind of urban-rural imbalance I have described? Of course, each country must find its own answer. I would, however, like to offer a few conclusions that seem likely from my own perspective on the situation.

I suggest that four major jobs are necessary:

1. *a build-up of agricultural productivity;*

2. *a revolution in the marketing of agricultural products in the cities;*
3. *a shift of industry to the production of simple agricultural equipment and consumers' goods for the mass market; and*
4. *a revolution in marketing methods for such inexpensive goods, especially in rural areas.*

Agricultural Productivity

First, the matter of agricultural productivity. If you look at agriculture in most of the developing nations, the first thing that strikes you is its uneven growth. In most countries there are a few bright spots, at least. Near the cities one can see the beginnings of modern market gardening or some dairy farming or modern chicken raising. One can see the relatively efficient production of industrial crops, such as cotton, tea, and rubber.

There are, however, vast areas of mainly subsistence agriculture, usually carried on by traditional methods of low productivity. Little surplus is produced from such areas for the cities, and little is bought of the cities' products except for soft drinks and manufactured textiles.

A good deal of assistance to agriculture has taken the form of road-building and extending communications into the countryside and beginning basic rural education. Roads and schools are, of course, a necessary condition for the modernization of the countryside, but they are not a sufficient condition.

Roads and schools do not in themselves automatically bring about a productivity revolution. What the countryside in developing nations seems to need, in addition, are three things:

- (a) *more technical advice, including advice about markets and marketing;*
- (b) *more credit resources, so that they can act on the technical advice; and*
- (c) *an increased incentive to shift over to new methods of agricultural production or to new crops.*

How, exactly, agriculture in a particular country should be transformed depends on what sort of new crops can be efficiently produced and are likely to find markets. Here general prescriptions are to be avoided, although I suspect we shall see a trend towards expanding urban markets for basic grains and protein foods, such as dairy products, meat, and poultry.

A Revolution in Marketing

This kind of agricultural revolution can be effective only if there is a parallel revolution in marketing, and this brings up the second element that appears in the making of a national market.

Recent studies of the food distribution system in some Latin American cities indicate that, with the use of modern marketing methods, food prices could be lowered by at least 10 per cent. To understand the meaning of this in a developing country, it may be recalled that more than half of the family income is spent on food by most of the population. In bringing about a revolution in food distribution, we are talking about big and immediate increases in human welfare.

It is therefore a requirement of a successful agricultural revolution that not only the producers of food but the distributors begin to think in terms of a mass market with small unit profits, compensated for by a larger turnover and an adequate return on investment.

If one looks closely at the cities in the developing areas, one can see the foundations on which to build. Experiments in supermarkets, for example, are taking place in a number of countries, as is the development of consumers' cooperatives. But, in many cases, they now supply a very small part of the market.

Most marketing involves too many middlemen, ending up in small shops with low turnover and high mark-ups. Building on the initiatives which have already been taken, resources should be increasingly devoted to the inexpensive, efficient marketing of the products of agriculture in urban areas.

Consumer Durables and Simple Tools

The third big requirement in making a national market is that manufacturers should expand their production to embrace not merely the goods which the small, wealthy middle class can buy, but to things which have real potential for mass marketing. I have in mind simple agricultural equipment, inexpensive textiles, canvas shoes, flashlights, household equipment, transistor radios, and the classic first-phase consumers' goods—bicycles and sewing machines.

Having seen villages in developing nations, I am convinced that, even at present levels of income, there is more cash in those villages than is sometimes thought. People who have produced and sold in the villages have usually done well. What is required now is a purposeful effort to bring the industrial capacity of the nation into the

service of a much wider range of the population than has been true in the past—including the 50 to 60 per cent of the people who have lived outside the market economy.

One cannot develop industrial efficiency if plants are underemployed. And the owner of an underemployed plant is not likely to turn his profits back into industrial expansion. To the manufacturer therefore the production of new goods for rural areas can be very important indeed.

Getting the Goods to Rural Markets

There is no point in manufacturing goods of this kind, however, unless they can be readily distributed and sold. This brings us to the fourth step: developing new, effective means of getting these goods to rural markets.

In some areas the technique of the mail order catalogue, which was so powerful an instrument in the development of American rural areas, might be used. But in countries where the rate of literacy is not sufficiently high and the postal service not sufficiently developed, this method is of little use.

What may be required are mobile trucks which would go at regular intervals into the villages with a stock of consumers' goods and agricultural equipment. Some interesting and promising experiments of this sort have already been undertaken.

Regardless of its exact form, an organization of production and marketing is needed which would allow a long period for rural dwellers to begin to react—in terms of their own effort to raise incomes—to generate an increased flow of these goods. I am told by an American firm which had experience in the early days of the development of the Tennessee Valley that it took about three years to make this kind of operation efficient. But from the very beginning, the availability of such goods at reasonable prices would give the developing nation a higher industrial employment for the expenditure of a given amount of income in the villages.

The Role of the Private Sector

This, then, is my four-point understanding of the way national markets are being formed to solve the typical structural distortions of many modern developing nations. If successful, this process will expand industrial production, increase industrial efficiency, and make the turnback of profits into industrial expansion economically at-

tractive. It will increase productivity in agriculture and raise the level of income in the cities by providing inexpensive, higher-grade foodstuffs. By making agricultural life more attractive and bringing to it some of the fruits that modern industrial methods can offer, it will damp down the abnormal flow from the country to the overcrowded cities.

This kind of process also offers a way in which the private sector within a developing country can make a massive contribution to the economic development as a whole. It is one thing for private enterprise to assemble or produce automobiles, television sets, and other durable consumers' goods for a small, rich, isolated middle class. It is quite a different matter for it to put its skills of manufacturing and marketing at the service of the urban and rural populations as a whole. I can think of no better way for private enterprise to demonstrate its legitimacy in a developing country than by taking part in a programme to break down barriers and build a national market.

If this is a helpful role, how does it begin? I suggest it is within the private business sector of each developing nation. Business leaders might counsel together and take stock of untapped market possibilities and costs of improved marketing arrangements for agricultural products in the cities, for manufactured products in the countryside. For certain projects they might begin on their own; for others they might need the understanding of the government or its active collaboration—as in building rural roads in a key area, or granting agricultural credit to expand output of newly marketable crops. It is possible that private and public authorities might decide to work together intensively—experimentally—in a particular region.

After examining this phenomenon with care in many parts of the world over the past four years, I am convinced that the basic raw materials exist for a great surge forward over the next decade in the more advanced developing nations. The industrial skills and organization are there. A considerable initial experience in rural development has been acquired. The first successful small experiments in supermarkets and cooperatives in the cities and in efficient rural marketing have taken place. The challenge now is to bring these powerful forces together and set them going at full speed.

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TEKTITES, GEOMAGNETIC REVERSALS, AND EVOLUTION

BILLY P. GLASS AND BRUCE C. HEEZEN

IN 1908, SHORTLY AFTER SEVEN O'CLOCK in the morning of June 30, an enormous fireball flashed in the earth's atmosphere and exploded above a forest in the Tunguska Valley of Siberia. The explosion uprooted trees and flattened the forest over an area twenty-five miles in diameter.

The only human beings near the scene were two families of nomads sleeping in tents at the edge of the area. The blast shook and deafened them, blew away their tents, and killed or frightened off their reindeer.

They were not, however, the only witnesses. It was so tremendous an explosion that people 250 miles away heard the noise, and barographs and seismographs all over the world recorded the shock. During the next few nights the sky throughout Europe and northern Asia was bright with silvery clouds.

It is estimated that the explosion released 10^{21} ergs of energy—a blast as great as the volcanic explosion that blew up the island of Krakatoa in 1883. Astronomers suspected that the explosion in Siberia had been caused by a large meteorite striking the earth.

A diligent search of the ground failed, however, to disclose any impact craters or recognizable meteorites. The only significant clues were microscopic spherules, some composed of glass and others of metal that were found strewn all over the devastated forest.

Bodies from Outer Space

Russian and American astronomers concluded that the blast was probably caused by a small comet entering the earth's atmosphere. The glassy spherules were believed to be remnants of the comet's exploded nucleus, and the brightening of the night sky that followed

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the blast was assumed to be due to the passage of the comet's tail through the atmosphere.

Some investigators now speculate that an encounter with a small meteorite of anti-matter, resulting in mutual annihilation with matter in the earth's atmosphere, might account for the explosion. It is still generally accepted, however, that in all likelihood the explosion resulted from a larger cosmic body plunging into the atmosphere.

Encounters with extraterrestrial matter—intrusions on our planet of particles and bodies from outer space—have provided food for thought in many branches of science, not to speak of literature and philosophy.

There are the cosmic ray particles that continuously bombard us, the great craters in the earth that tell of the fall of large meteorites in the past, and the spectacular falls that man has witnessed in our own century, such as the fireball of 1908 and the large meteorite that also fell in Siberia in 1947.

We shall relate here some recent findings that may further illuminate the history of the earth's encounters with cosmic bodies. The writers of this article are not astronomers or physicists; we are marine geologists, and our evidence comes from exploration of the ocean bottom.

Evidence from Sea Bottoms

This evidence suggests, among other things, that the earth has been subject to massive cosmic collisions at fairly frequent intervals, and that it may be due for another major encounter.

A number of investigations have shown that the poles of the earth's magnetic field have reversed many times. Indeed, in recent geologic periods they have reverses every few hundred thousand years. Such studies are based largely on magnetism "frozen" into certain rocks and sediments.

The investigation of fossil magnetism in deep-sea sediments began barely a year ago. A new apparatus for such purposes had been built by John Foster, working in the palaeomagnetic laboratory of Neil Opdyke at the Lamont Geological Observatory of Columbia University, and within the first few days of its use on deep-sea sediments it had served to demonstrate that geomagnetic reversals are recorded in many of them.

Then the observation was made that the layers of sediment that recorded the reversals were correlated with layers that indicated an abrupt change in populations of tiny marine animals.

These results were not totally unexpected; other investigators had

detected magnetic reversals in deep-sea sediments. Brian Funnel and Christopher Harrison of the Scripps Institution of Oceanography had reported a correlation between a similar biological boundary in mid-Pacific sediments and the last geomagnetic reversal, which occurred 700,000 years ago.

Magnetic Reversals and Evolution

In fact, Robert Uffen, Chairman of the Defence Research Board of Canada, had predicted on purely theoretical grounds that a correlation must exist between magnetic reversals and biological evolution. He reasoned that an abrupt decline in the strength of the earth's magnetic field, which normally tends to deflect the electrically charged particles of cosmic radiation, would allow more of the particles to reach the earth's surface; there they would exert a powerful effect on evolution by causing mutations, lethal and otherwise.

Critics of Uffen's proposal observed that the flux of cosmic rays at sea level would be only doubled and that, although land organisms might be affected, marine life would be largely shielded by seawater.

Be this as it may, the correlation between evolutionary crises and magnetic reversals was first detected in fossil marine organisms. The correlation seems to be standing up, but it should be said that there are unexpected gaps in it; more work on the fossil plankton must be done before a firm conclusion can be drawn.

The possibility that magnetic reversals and changes in fossil plankton were associated with an extraterrestrial intrusion was unexpectedly suggested to us as we were studying sediments from the sea bottom off Australia. In these sediments we found tiny spherules, teardrops, dumbbells, and other shapes characteristic of the class of glassy meteorites known as tektites.

Distribution of Microtektites

These microtektites, none larger than a millimetre across, closely resemble larger tektites found on land in that part of the world. They were obtained from a layer starting at the bottom with sediments laid down at the time of the last geomagnetic reversal and ending between thirty and fifty centimetres higher.

Spurred by this discovery, we found microtektites in core samples of the bottom taken off Australia and Tasmania, in the Philippines area, near Japan, and across the Indian Ocean almost all the way to Capetown. The litter of tektites turned out to cover an area 6,000 by

4,000 miles in extent, from Tasmania to well north of the Philippines and from the East Indies to the east coast of Africa.

The fact that the microtektites were all laid down in sediments dated to the time of the last geomagnetic reversal immediately points to a common cause, possibly an encounter between the earth and some massive cosmic body. Naturally one is struck by the fact that the microtektites are similar to the microscopic glassy spherules that fell in the Tunguska Valley forest in the explosion of 1908.

Our samplings from the ocean bottom indicate that at least a quarter-billion tons of glassy material was strewn over nearly a tenth of the earth's surface. Undoubtedly a cosmic collision that deposited this amount of material would have caused fantastic destruction of animal and plant life in the area, and it could have raised tidal waves that swept over shores throughout the world.

Harold C. Urey of the University of California at San Diego and others have proposed that tektites are melted terrestrial materials such as soil or sandstone, but the fact that the exploding Tunguska object, although it did not reach the ground, sprayed glassy objects apparently identical with the microtektites over the flattened forest at least suggests that the tektites of the Far East, both large and small, are also extra-terrestrial.

The tektites might have been formed by the explosion and melting of extraterrestrial bodies within the earth's atmosphere. Their glassy character and their shapes suggest that they are bits of cosmic material that melted as it plunged at high speed into the earth's atmosphere.

The remains of Java man, now known as *Homo erectus* and considered the direct precursor of *Homo sapiens*, together with the bones of elephant, hippopotamus, rhinoceros, boar, tapir, buffalo, deer, porcupine, cat, hyena, and otter are found mixed with nut-sized tektites in sediments deposited in Java 700,000 years ago. Similar tektites have been found in Australia, Indonesia, the Philippines, and Indochina.

They were thought to represent separate falls until it was determined by radioisotope dating that all the tektites analysed from each of these areas had last been molten 700,000 years ago.

A Catastrophic Explosion?

Other studies showed that tektites lacked certain isotopes produced by the bombardment of cosmic rays which indicated that the tektites had reached the earth and its protecting atmospheric and magnetic field within less than 100,000 years of the time they had last melted.

What kind of cosmic body might have produced a catastrophic explosion 700,000 years ago? Was it a comet, a giant meteorite, a small planet, a piece that had been chipped out of the moon by some cosmic collision?

We can only speculate about the identity of the visitor, but certain items of information give us some idea of what may have happened to the body after it had entered the earth's atmosphere.

The Far Eastern tektites occur in at least three forms. Those in one group, found mainly in Australia, have the shape of buttons; they look as if they had been originally molten, then had cooled, and finally were partly remelted and eroded by the air as they fell through the atmosphere.

Those in a second group, found all over Southeast Asia, are streamlined forms—teardrops, rods, dumbbells, ellipsoids, and saucers—that apparently were not aerodynamically eroded after they had cooled.

Those in a third group, found in Thailand, are irregular pieces of broken glass that show little sign of remelting.

From these facts it has been deduced that when the original body entered the atmosphere it was heated to an immense fireball and may have broken up into two or three (or more) separated bodies. One of these fragments may have exploded in the outer reaches of the atmosphere, so that its glassy debris was first cooled and then was reheated in its passage through the lower atmosphere, producing aerodynamically eroded tektites of the kind found in Australia.

If a second major fragment had exploded closer to the ground, that might account for the uneroded shapes of the tektites that were not remelted (presumably because this debris travelled only a short distance through the atmosphere).

The broken pieces found in Thailand may be the debris of a fragment that exploded so close to the ground that its pieces were not melted smooth by friction with the air. On the slopes of Mount Darwin in Tasmania there are bits of glass, resembling tektites, that may have been scattered over the ground by a small segment of the cosmic body that hit the ground.

The larger tektites are widely dispersed and are difficult to find in outcrops of stratified rocks. The discovery of microtektites in ocean sediments therefore opens a new avenue of research.

Now that one knows that microtektites exist, one can look for them not only in ocean sediments but also in outcrops of rock on land and in core samples obtained by drilling in sedimentary rocks and salt deposits. The microtektites on land may have much to tell

us about tektites in general and the event or events that gave rise to them.

It seems entirely possible, then, that the tektites of the Far East resulted from the fall of a cosmic body, and that the body fell at the time of the last reversal of the earth's dipole magnetic field.

Causes of Magnetic Reversals

Here it is necessary to consider the reversals themselves. The main magnetic dipole field of the earth is usually attributed to the magnetohydrodynamic effects of slow convection currents in the earth's liquid core.

The theory of this natural dynamo is well worked out, but nothing is yet known about the mechanism by which the magnetic fields are reversed.

The sun has a very weak dipole field that apparently reverses at the beginning of each eleven-year sunspot cycle. This regular reversal, which seems to be related to convection currents in the sun's interior, has led some workers to speculate that the reversals of the earth's field are due to a similar but slower oscillation in the earth's core.

The reversals of the earth's field, however, do not have a regular cycle. In fact, there is no generally accepted theory that explains why the earth's magnetic polarity should be unstable at all.

If it can be assumed that the reversal of 700,000 years ago took place during a cosmic encounter, the encounter may have somehow disturbed the earth's magnetohydrodynamic dynamo. We cannot look into the nature of the disturbance or how it was brought about until we know more about the circumstances of the encounter and the operation of the earth's dynamo. In any event, we have good reason to continue with an intensive search for tektites on the ocean bottom.

Thus far we have correlated only one magnetic reversal with one cosmic encounter. One might mention, however, that tektites fell on the Ivory Coast of Africa about a million years ago, and that the earth's magnetic field reversed at the same time. If we can find tektite falls associated with still other reversals of the earth's field, we shall have stronger grounds for believing that the connection is more than a coincidence.

Dating of Tektites

There are remarkably few craters on the earth showing the impact of foreign bodies. The moon, however, is copiously pitted

with such craters. It seems logical to suppose that the earth is hit at least as often as the moon.

The comparative absence of large impact craters on the earth may be due to two main factors: (1) bodies approaching the earth generally burn up or explode in its atmosphere and (2) the processes of erosion and sedimentation on the earth tend to wipe out most of the craters produced by the occasional impacts.

Three dates can be given for each tektite fall: the rubidium-strontium date indicating when the chemical mixture of the tektites was created, the potassium argon date indicating when the tektites were last liquid, and the age of the strata indicating when the tektites were deposited.

Tektites were melted and deposited 700,000 years ago in the Far East, fifteen million years ago in Czechoslovakia, and thirty-five million years ago in North America and Libya. All these tektites apparently come from an original mass that was chemically differentiated, possibly in some straying minor planet, some 400 million years ago.

The Ivory Coast tektites were melted a million years ago, but the original mass seems to have differentiated two billion years ago.

It is, of course, hazardous to speculate on facts so few and so uncertain. If, however, tektite-producing encounters are responsible for most geomagnetic reversals, and if we can take the three-to-one ratio of tektite parent material 400 million years old to that two billion years old as a measure of their relative abundance in space, then we would expect to see an increase in the rate of reversal sometime subsequent to 400 million years ago.

Increasing Frequency of Reversals?

It must have been shortly after this time that the catastrophe took place that separated the parent bodies of the younger tektites. In this connection it is interesting that Russian workers have concluded that geomagnetic reversals occurred much less frequently in the lower Palaeozoic era (perhaps 450 million years ago) than in the Mesozoic and Cenozoic eras (from 230 million years ago to the present).

Their observations for the interval between 400 million and 500 million years ago indicate one reversal every five to ten million years, compared with an average of one reversal per million years for the past seventy million years.

As one of the authors of this article observed several years ago, the Mid-Oceanic Ridge, the undersea mountain system that runs down

the middle of all the oceans, has gradually become wider as fluid rock has periodically risen through the rift that marks the centre line of the ridge.

In the successive bands of outward-flowing rock the magnetic material exhibits changes in north-south polarity, as distinct as zebra stripes, that reflect the reversals of the earth's magnetic field.

By examining these bands and dating them Walter C. Pitman III and James R. Heirtzler of the Lamont Geological Observatory were able to estimate that over the past seventy-five million years the earth's field has on the average reversed about once every million years.

One may note that for the past twenty million years the average interval between reversals has been about 250,000 years, that the largest interval has been 800,000 years, and that occasionally the interval was no more than 10,000 years. The next reversal would therefore seem to be due.

Many cosmic bodies of microscopic size fall on the earth each thousandth of a second. Meteors enter the atmosphere every second. Small meteorites hit the solid surface of the earth every day. A meteorite large enough to produce a small impact crater falls every few thousand years.

A cosmic body sufficiently large to cause a reversal of the geomagnetic field may arrive every few hundred thousand years. It seems plausible that the geological clock may strike new periods when even larger bodies hit the earth every few tens of millions of years.

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BOOK NOTES

These brief reviews are of books available at American Libraries in New Delhi, Bombay, Calcutta, Madras, Bangalore, Hyderabad, Lucknow, Trivandrum, Guntur, and Patna.

BEST AMERICAN SHORT STORIES, 1966, AND THE YEAR BOOK OF THE AMERICAN SHORT STORY. Houghton. 1966. 381 pp. This annual once again presents contemporary writers with twenty stories, some of high quality. Among the authors included are William Faulkner, Shirley Jackson, Flannery O'Connor, Shirley Ann Grau, and Mary Lavin.

A SIMPLIFIED GUIDE TO AUTOMATIC DATA PROCESSING. By William A. Bocchino. Prentice. 1966. 246 pp. This book is a simplified, comprehensive explanation of Automatic Data Processing (ADP). It presents all technical aspects of the subject. Although directed to the businessman or students of business administration, this comparatively simple presentation will be of value to anyone considering automating operations.

THE IMPACT OF THE SOCIAL SCIENCES. By Kenneth E. Boulding. Rutgers, 1966. 117 pp. A distinguished economist discusses the impact of the social sciences on our civilization, concluding that their influence has been real and beneficial in economics but almost totally absent from such vitally important areas as international relations and aspects of religion, law, and ethics. For the future he sees great opportunities for a scientific approach to all human problems.

WATER: THE VITAL ESSENCE. By Peter Briggs. Harper. 1967. 223 pp. A fascinating book about water tells the story of its part in shaping history and

its amazing role in the prosperity of a nation. One-half of the text is devoted to the growing science of oceanography. The problems of water supply and the water pollution story are emphasized and the need for better water management is the central theme of the book.

PUBLIC TELEVISION : A PROGRAMME FOR ACTION. By Carnegie Commission on Educational Television. Harper. 1967. 254 pp. A commission to study the financial needs of educational television focused its attention on community-owned channels and their services to the general public. Detailed recommendations cover strengthening of local stations and the establishing by Congress of a federally chartered, non-profit corporation for public television. Included is statistical material on audiences, stations, costs, and supplementary papers.

ON THE ICE. By Peter McFerrin Clarke. Burdette & Co. 1966. 104 pp. Striking photographs, a few in colour, plus highly readable text provide an exciting account of Operations Deep Freeze, the United States Navy project in Antarctica. The text covers every job in this vast research programme. Of particular interest is the account of the complex supply operation necessary to support this scientific project.

SLUMS AND COMMUNITY DEVELOPMENT: EXPERIMENTS IN SELF-HELP. By Marshall Barron Clinard. Free Press. 1966. 392 pp. Comparative research material on types of slums and slum dwellers in Western and non-Western societies has special

emphasis and an extensive description of a community self-help project in Delhi. The central thesis is that the attack on slums cannot wait for a strong rise in the standard of living, but self-help projects directed at unsanitary conditions, squalor, disease, and ignorance can achieve substantial results.

THURBER & COMPANY. By James Thurber. Harper. 1966. 208 pp. This collection of over 200 drawings, many of which have not previously appeared in book form, includes Shakespeare illustrations, Thurber's impressions of London and Paris thirty years ago, and some self-portraits.

THE PROBLEM OF SLAVERY IN WESTERN CULTURE. By David Brion Davis. Cornell. 1966. 505 pp. This monumental study of contradictions in the mind and soul of men generated by the impact of slavery in different periods and nations accents its continuity and the difficulty of reforming it. Covered are the thought of the Greeks, Romans, early Christians, and philosophers from Plato to Locke on slavery, attitudes towards slavery in the New World up to about 1770, and the principal sources of anti-slavery feeling and conviction.

CREDIT UNIONS. By Jack Dublin. Wayne State University. 1966. 179 pp. In this book Mr. Dublin provides an outline of how to start credit unions, explains the philosophy behind credit unions, and tells who might organize a credit union. He also examines cooperative and community development through credit unions.

DIMENSIONS OF AMERICAN FOREIGN POLICY: READINGS AND DOCUMENTS. Edited by Martin C. Needler. Van Nostrand. 1966. 372 pp. Foreign policy goals, the making and execution of policy, Soviet challenge and peaceful coexistence, arms control, Europe, China, developing nations, the United Nations, and facing the future are treated in this collection of readings. Nuclear strategy, Berlin, the Alliance for Progress, U.N. peace forces, and Vietnam also are included in the selections.

THE HEART EXPLORERS. By Tony Simon. Basic Books. 1966. 118 pp. Beginning with a vivid account

of the first successful heart operation in 1896, Simon describes how the heart and other important body organs function. Other chapters appraise the pioneering work of many early scientists and doctors. In discussing advances in heart surgery and the many helpful machines and artificial heart parts recently developed, the work of many American doctors is noted.

THE PRESS IN DEVELOPING COUNTRIES. By E. Lloyd Sommerlad. Sydney University Press. 1966. 189 pp. This is a survey of the status of the press in the newly developing regions of Asia, Africa, and Latin America. The problems of the press are examined country by country; qualifications for training in journalism, newspaper production, national news-agencies, problems of freedom and responsibility, and the making of newspapers for new literates are usefully discussed.

DRAGON'S EMBRACE: THE CHINESE COMMUNIST AND AFRICA. By Emmanuel John Hevi. Praeger. 1967. 152 pp. Hevi, a Ghanaian, spent 18 months in Red China, which he reported in a previous book. Now he surveys China's aggression around its perimeters and its attempts at subversion in Africa.

MOVIN' ON UP. By Mahalia Jackson, Hawthorn. 1966. 212 pp. Mahalia Jackson's story of her life is told with warmth and gaiety even though she had her share of troubles. She was raised in New Orleans with music all around her and she started singing about as soon as she was walking and talking. This strong expressive music has given her gospel songs the "bounce" and flavour which has made her internationally famous.

THE ECONOMICS OF AGRICULTURAL DEVELOPMENT. By John Williams Meilor. Cornell. 1966. 403 pp. A survey of the importance and problems of agriculture in developing economics, this book focuses on how agriculture can provide a larger impetus to national economic development. The role of agriculture in overall economic development and the economic nature of traditional agriculture, including the economic process of modernization, are analysed.

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EDITOR'S NOTE ON MR. GASS' LETTER

There were 982 lines in the original article. Of these:

- (a) The first twenty-one lines were condensed to about thirteen in the excerpted version. The principal sentence omitted was:
"In these next years, a grave political and moral problem for the United States, in its relations with other countries, will be the absence of an equal . . ."
- (b) The next 136 lines were omitted. They commented:
 - i. on the primacy of U.S. power in relation to the U.S.S.R. and Western Europe;
 - ii. on the success of "less advanced peoples" in "establishing their own unaffiliated authoritarianisms";
 - iii. on the rejection of the "Leninist model" by "more advanced nations";
 - iv. that the phrase "the illusion of American omnipotence" does not correctly describe "American outlooks";
 - v. that it is neither America nor communism but "mankind which has failed in China. And nobody today knows the way out"; and
 - vi. that China, before 1959, believed it could industrialize rapidly, but later realized it could not.
- (c) The last 825 lines are identical with the original except for:
 - i. translating *Volk ohne Raum* as "people without room"; changing "the lady" to "Chiang Ching"; changing "they" to "the Red Guard"; changing "they" to "the Revisionists";
 - ii. omitting the following sentences or phrases:
"Indolent minds do sometimes still repeat the slogan that China will be a model of industrialization to other poor countries. But general emulation of China's industrial accomplishment would make no sense."

* * *

P8456

“(Perhaps they had advocated a better equipped, more professional military force. Perhaps they were even indulgent of military collaboration with the U.S.S.R.)”
(in explaining dismissals from the Chinese Army.—Ed.)

* * *

“... special *Sturmabteilung* of youthful ...”
(Referring to the Red Guard—Ed.)

* * *

“And so they found that ...”

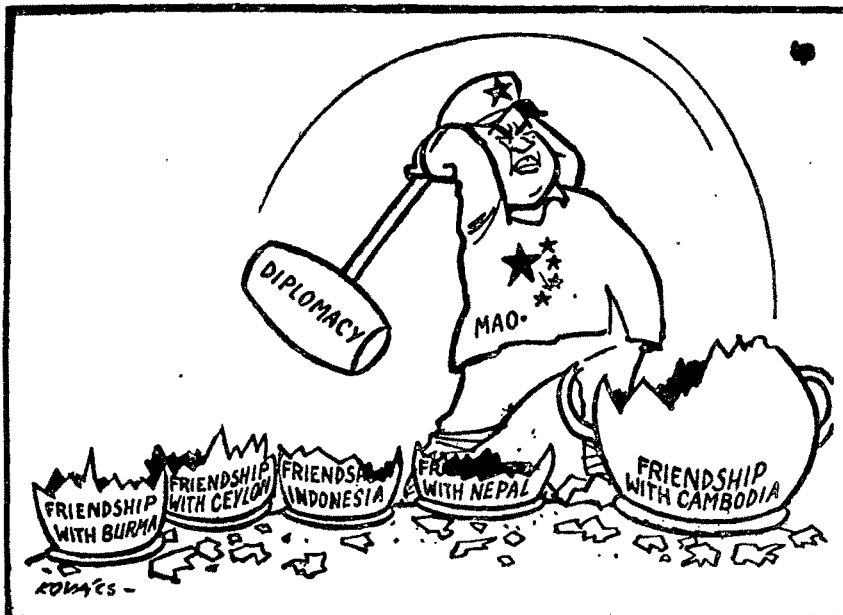
* * *

iii. Changing the last sentence from:

“Peking is increasingly talking to itself” to “China now speaks only to itself.”

* * *

All of these changes were in the draft submitted to Mr. Gass, but which he did not in fact see. We mistakenly believed he had approved the draft, whereas he had actually approved only the reprinting of the original article.—Ed.



Blow by Blow

— Courtesy: “Philippines Herald”

